ONE THOUSAND CONSECUTIVE INDUCTIONS OF GENERAL ANÆSTHESIA.

BY

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THE following remarks are based on a consecutive series which, excluding anæsthesia with nitrous oxide, is composed as follows :—

Chloroform	792
Ether	10
A.C.E.	4
Nitrous oxide and ether	17
Chloroform and ether	101
Chloroform, A.C.E. and ether	6
A.C.E. and ether	5
A.C.E. and chloroform	53
Nitrous oxide, ether and chloroform ...	1
Methylene	11
	1000

CHLOROFORM.

I usually administer chloroform from lint spread on a wire frame, practically Skinner's inhaler, and sometimes give it from a Clover's inhaler without the bag. The most unpromising cases for an anæsthetic often take chloroform exceedingly well. Some years ago I gave chloroform, with some inward misgivings as to the result, to a man with a fracture in the lower cervical region. The surgeon kept him turned over nearly flat on his abdomen and performed laminectomy. He only had his diaphragm with which to respire, but his condition never gave a moment's anxiety, as he breathed perfectly throughout the operation.

In patients cyanosed from lung affections the combination

of oxygen with chloroform is often of service, as in the following case.

The patient, a boy aged 15, had an abscess of the right lung, caused by a foreign body, which was discharging through a bronchus into the trachea. Chloroform was given for resection of ribs and drainage of abscess. At frequent intervals he coughed up fœtid pus and became black in the face. The cyanosis was treated by giving oxygen throughout the operation, which lasted three-quarters of an hour, the tube from the cylinder being inserted into one nostril, only enough chloroform being given to maintain a partial anæsthesia. In the case of deep cyanosis at the end of an operation, when the anæsthetic has been stopped, a less wasteful method is to attach the tube from the oxygen cylinder to a Rumboll-Birch ether inhaler.

A very disagreeable complication when chloroform is given at night near a lighted gas-jet is the decomposition of the vapour into carbonyl chloride, which, in the presence of moisture, is split up into carbonic and hydrochloric acids. This has happened to me on three occasions, and produced violent coughing in everyone present. In one case the pungent odour was so strong that the operator, assistant, and nurse had to leave the room. A nurse is reported to have died from inhaling these fumes while assisting at an operation.

In those cases where the patient, being only half anæsthetised, passes into a state of partial apnœa, the colour and pulse remaining good, I have found a minute's artificial respiration restore regular respiration with corresponding absorption of the anæsthetic and saving of time.

ETHER.

The smell and taste of ether is so objectionable to many patients that I never now give it unless preceded by nitrous oxide or chloroform. I have seen no case of what is known as "ether pneumonia," but, where possible, avoid ether in patients with marked bronchitis. When using the Rumboll-Birch ether inhaler the patient's breath sometimes condenses freely in the glass chamber, where it can be seen as a distinct layer, on which the ether floats. On one occasion I was surprised to

find the patient rapidly regaining consciousness in the middle of an operation with half an ounce of ether left in the glass chamber. On closer inspection the fluid was seen to be practically water, all the ether having evaporated.

When during chloroform anæsthesia the breathing or pulse has become bad, I have found nothing so satisfactory as ether given from a Clover's inhaler. Its one drawback is that the operator, especially in cases of intestinal obstruction, is sometimes tempted by the temporary improvement caused by the ether to perform a longer operation than is justified by the patient's real condition. It must never be forgotten that in these cases the patient is going at top pressure, and when a few hours later the stimulus of the ether wears off the resulting collapse is very great and sometimes fatal. In desperate emergency cases, ether, from the anæsthetist's point of view, is invaluable; it has often saved me from having a death on the table, although the patient has not infrequently succumbed within the next twenty-four hours. Young infants take ether well: I usually administer it to them from a mask, after producing partial anæsthesia with chloroform or A.C.E.

IMMUNITY TO ANÆSTHETICS.

I have not seen a case in which anæsthesia could not be produced. Two cases of partial, probably acquired, immunity have come under my notice. The first is a personal experience. Eighteen months ago, at a time when I had been administering weekly a large number of anæsthetics and no doubt inhaling a certain amount myself, I had nitrous oxide and ether administered to me from a Rumboll-Birch inhaler. I lost consciousness with the gas, but as soon as the ether was mixed with the gas began to come round, and after a few minutes, during which I inhaled half an ounce of ether, was wide awake. Chloroform was then given, and I was easily anæsthetised. It seems probable that I had established a partial immunity by inhaling small doses for many days in succession. The second case is that of a medical friend, who, after being anæsthetist to a hospital for a year, required an enormous amount of

chloroform, the administration of which lasted 1¼ hours to produce anæsthesia.

TAIT'S MIXTURE.

Tait's mixture, two parts of ether to one of chloroform, given from a Clover's inhaler without the bag, I find to produce very satisfactory anæthesia in women.

DEATH.

I have had one death during anæsthesia. The patient, a young woman, had a large pyo-nephrosis removed under chloroform. At the end of the operation the anæsthetic was stopped, and the dressings were being applied when the patient suddenly became rigid; pulse and respiration, which up to this point had been very fair, ceased *instanter*. The rigidity resembled the rigid stage of an epileptic attack. There was no history of epilepsy, and nothing abnormal was found at the *post mortem*. I have often speculated whether a large dose of toxins could have been absorbed from the suppurating kidney during the operation and produced the fit. But at best this is only conjecture. A fit is a rare mode of death during anæsthesia.

TREATMENT OF EMERGENCIES.

Judging by some of the cases reported from time to time in medical literature, medical men occasionally lose their heads on the occurrence of an emergency during anæsthesia, and in some cases the loss of reasoning power persists to such an extent that they publish the case, with the treatment adopted, as being worthy of imitation. Only mental aberration will account for cases reported within the last few years where a patient is given ether, becomes cyanosed with feeble pulse, is then hung head downwards, and has more ether injected under the skin; or where, for a patient known to have œdema of the glottis, ether, which effectually closes the already narrowed rima, is selected as the anæsthetic; entry of air is mechanically prevented, yet artificial respiration is attempted for a quarter of an hour, but no effort is made to open the trachea. Such cases as the above are the result of unreasoning and indiscriminate application of routine methods.

The ordinary treatment of emergencies arising during anæsthesia is too well known to be entered into here, but there are two causes of collapse and their treatment to which I will refer:—1. Cooling of the patient by exposure of either the cutaneous surface or the viscera. 2. Loss of blood.

To prevent the first, care should be taken to see that the patient is thoroughly warm before the anæsthetic is given. It is illogical to anæsthetise a patient in a cold room on a cold table and then carry him to a warm operation table in the hope of warming him again, as the exposure necessary for the operation effectually neutralises any additional warmth which may be obtained from the table. When the operation table is warmed by such means as a hot-water bed, it is essential during a long operation to test from time to time the heat of the water, and when it cools to have it partly replaced by hotter water or supplemented by extra hot bottles. The water bed must always be hotter than the patient; it will not get absolutely cold, as it is being kept warm by the patient, who loses a corresponding amount of heat in the process. Stimulants, such as brandy and strychnine, injected hypodermically, by improving the circulation help to maintain the warmth of the patient. Hypodermic injections for collapse should be made deeply into muscles of the trunk, or of a limb near the trunk, and not beneath the skin of the extremities where, in a collapsed patient, the lymph circulation is practically *nil*. The pectoralis major is a useful muscle into which to inject, especially if artificial respiration is being performed, as the movements largely help to massage the fluid on into the general circulation. It is illogical to inject ether into a patient who has been inhaling ether; he is already saturated.

To remedy both the first and second, intravenous injections of hot sterile saline solution, up to six or more pints, with the addition of strychnine or brandy, should be made. Running in the solution by a funnel and tube does very well provided the symptoms of collapse are not urgent and the solution continues to run; but every now and again, after injecting one or two pints, the funnel and tube fail to act. The cause of this failure apparently lies in some ill-understood condition of the

patient's vascular system, as the difficulty persists after the patency of the cannula and tube has been demonstrated and the height of the column of fluid increased to six feet. I have seen this occur on several occasions, on one of which the patient died without the chance which a free supply of saline solution might have given him. In my own practice I always inject it by a cannula fitted to a Higginson's syringe. I have done this frequently, and have never seen a bad result from injecting slowly but forcibly. The objections to this method are, I believe, theoretical. With the Higginson's syringe tied to the handle of a large jug, one pair of hands can easily manage the injection, which is a great advantage when operating in private. After cœliotomy, I have on several occasions filled the peritoneal cavity with hot sterile saline solution, thus providing the patient with an internal hot-water bag, which I find very useful in combating shock.

THE INEBRIATES' ACTS, 1879—1899.

BY

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THERE is no statutory enactment touching alcoholic or other inebriates (*A*), who by private agreement become resident patients in various Homes, or in the houses of medical men (1). There is no official cognisance or inspection of such, nor any form of legal restraint where moral influences fail.

The following are the Acts of Parliament relating to the "inebriate" or "habitual drunkard":

No. I.—An Act to facilitate the control and care of Habitual Drunkards (1879).

II.—An Act to amend the Habitual Drunkards' Act, 1879 (1888).

III.—An Act to consolidate the Acts relating to the Prevention of Cruelty to, and Protection of, Children (1894).

IV.—An Act to provide for the treatment of Habitual Inebriates (1898).

V.—An Act to Amend the Inebriates' Act, 1898 (1899).

An habitual drunkard means "a person who, not being amenable to any jurisdiction in lunacy, is notwithstanding, by means of habitual intemperate drinking of intoxicating liquor, at times dangerous to himself or to herself, or incapable of managing himself or herself, and his or her affairs." In a footnote to one of the forms now in use it is stated: "The Secretary of State (Home Secretary) is advised that 'intoxicating liquor' may include liquors other than alcohol, if their habitual intemperate use brings the consumer into the condition of an 'Habitual Drunkard.'"

Of the above Acts, Nos. I., II., and the amending parts of No. IV. refer to non-criminal inebriates voluntarily applying for admission (*B*) to a duly licensed "Retreat" (2). Observing certain formalities, they sign an application for admission to the licensee before any one Justice of the Peace, who attests their signature. By No. III., an habitual drunkard convicted of cruelty to a child may, in place of imprisonment, be sent with his consent (*C*) to a "Licensed Retreat," as if he were voluntarily applying in the ordinary way—this provision appears to be a dead letter. The rest of No. IV. and No. V. refer to criminal inebriates (*D* and *E*), who may, on conviction for certain offences, be compulsorily sent to and detained in "Inebriate Reformatories" established or certified by the Secretary of State. The Acts apply, *mutatis mutandis*, to Scotland and Ireland.

The Act of 1898 (No. IV.) introduces certain novel points: (1) As regards "Licensed Retreats," the license may be granted for a period up to two years in place of thirteen months. A patient may be detained up to two years in place of up to twelve months, and extension of his term and his readmission

are simplified. By section 14, "The council of any county or borough may contribute such sums, and on such conditions as they may think fit, towards the establishment and maintenance of a retreat under the Inebriates' Acts, 1879 and 1888, as amended by this Act, and two or more councils may combine for any such purpose." The great remaining blots on the Act are, the necessity of the applicant for admission appearing before a justice at all, and the absence of power for a licensee to recover an escaped patient without a warrant and recourse to the police.

(2) As regards "Inebriate Reformatories" (the creation of the Act), two grades of criminal drunkards and two sets of reformatories are contemplated. By section 1, where a person is convicted of an offence punishable with imprisonment or penal servitude (*i.e.* any serious crime), if the court is satisfied from the evidence that the offence was committed under the influence of drink, or that drunkenness was a contributing cause of the offence, and the offender admits that he is, or is found by the jury to be, an habitual drunkard, the court "may," in addition to or in substitution for any other sentence, order that he be detained for a term not exceeding three years in any State Inebriate Reformatory (3) or in any Certified Inebriate Reformatory (4). By section 2, any person who commits any of the offences scheduled (*i.e.* different forms of disorder with drunkenness), and who within the twelve months preceding the date of the commission of the offence has been convicted at least three times of any offence so mentioned, and who is an habitual drunkard, "shall be liable" on conviction to be detained for a term not exceeding three years in any Certified Inebriate Reformatory.

The intention to establish a State Inebriate Reformatory (an Inebriate Broadmoor?) is for the present abandoned.

In reference to local institutions, the Royal Victoria Home, Brentry, is a "Licensed Retreat" for 50 females, and a "Certified Inebriate Reformatory" for 75 females and 30 males. The parent charity, the Royal Victoria Home, Horfield, was formerly a "Licensed Retreat"; it is now a "Certified Inebriate Reformatory" for 25 females, used as

Institution.	Established and Maintained by	Number and Accommodation (May, 1900).	Nature of Ca
(1) **Private Retreat, Home or House,** "not under the Act."	Any person or persons.	Uncertain.	(A) Voluntary pri inebriate pa or boarde
(2) **Licensed Retreat** "under the Act."	Any person or two or more persons jointly, licensed by a Borough or County Council. Any Council may contribute.	Number—17. Accommodation for 305 (131 males, 174 females).	(B) Habitual drun voluntarily a ing.
			(C) Habitual drun guilty of cr to a child— his consen
(4) **Certified Inebriate Reformatory,** *i.e.* Reformatory certified by the Home Secretary.	Any Borough or County Council or any persons desirous. Any Council may contribute. (To expenses of detention Treasury may contribute.)	Number—4. Accommodation for 208 (30 males, 178 females).	(D) Habitual drun guilty of an of punishable imprisonment penal servitu
			(E) Habitual drun four times victed of dru ness as sche within the y

Nature of Case.	Admission.	Discharge.	Special Acts of Parliament, or parts thereof (Short Titles).
(A) Voluntary private inebriate patient or boarder.	Private arrangement or contract	Legally at the will of the patient.	None.
(B) Habitual drunkard voluntarily applying.	Formal application to licensee by patient, with two statutory declarations that he is a habitual drunkard, applicant's signature being attested by any one Justice of the Peace. Maximum detention two years.	Expiry of period of detention: order of a Justice of the Peace or Judge, &c.	I. Habitual Drunkards' Act, 1879. II. Inebriates' Act, 1888. IV. Inebriates' Act, 1899, sections 13 to 21 inclusive, and part section 27, and sections 28 to 30 inclusive.
(C) Habitual drunkard guilty of cruelty to a child—with his consent.	On conviction, Court may, in place of a sentence of imprisonment, make an order for his detention for a period not exceeding 12 months.	As next above.	III. Prevention of Cruelty to Children Act, 1894, section 11.
(D) Habitual drunkard guilty of an offence punishable with imprisonment or penal servitude.	After conviction the Court may, in addition to or in substitution for any other sentence, order that he be detained for not more than three years. To (3) or (4).	Expiry of period of detention and regulations of Home Secretary.	IV. Inebriates' Act, 1898, except sections 13 to 20 inclusive, part section 27, and section 28.
(E) Habitual drunkard four times convicted of drunkenness as scheduled within the year.	After conviction shall be liable to be detained for not more than three years.	As next above.	V. Inebriates' Act, 1899.

reception house for the other, no case being retained for more than twenty-eight days. Private patients ("not under the Act") of limited means have also been admitted at both Brentry and Horfield. The two Homes were the first to be certified as "Inebriate Reformatories" under the Act of 1898 (No. IV.), on March 30th, 1899.

For those inebriates who are unwilling to put themselves under any form of care and treatment, and who at the same time keep outside the pale of the law, except so far as they may be qualifying as "repeaters," there exists no form of legal compulsion, and, consequently, no institution is providable for them at present.

The appended table exhibits pretty fully the scope and limitations of the existing legislation. For the sake of simplicity, reference to a State Inebriate Reformatory (3) is omitted. This would be established and maintained by the Home Secretary out of moneys voted by Parliament, would admit Class D only, and to it the Prisons Acts (1865—1898) would apply.

THE DIETETIC TREATMENT OF ZYMOTIC ENTERITIS, ESPECIALLY WITH REGARD TO THE USE OF RAW MEAT JUICE.

BY

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IT will, I think, be conceded by all familiar with epidemics of zymotic enteritis (so-called summer diarrhœa) that, with the exception of human milk, milk food of any description is, in the majority of cases, badly borne during the early part of the disease. This is especially so when fresh cow's milk (previously boiled) is employed. No matter in what way prepared, whether

specially sterilised or peptonised and given weak, it frequently disagrees. Condensed milk, simple or peptonised, will often be found to agree when fresh cow's milk does not; still, in a good number of cases it also is badly tolerated.

At the onset of the disease, it is absolutely necessary to stop giving milk food. Unless milk is completely excluded from the diet, the disease will certainly get worse. When vomiting is severe, food of any kind by mouth should be prohibited for a period of twenty-four to forty-eight hours. It is best to let the stomach have complete rest so far as is possible. If exhaustion is extreme, stimulants will be required and should be given in full doses, administering them *per rectum* if necessary. It is a good plan in those cases where collapse is marked to give an enema composed of two or three teaspoonfuls of stimulant (brandy or whisky) and one or two ounces of beef tea.

When sickness has largely abated, half a teaspoonful of Brand's meat essence, or half to one teaspoonful of a mixture of ten to twenty parts of boiled water and one of Valentine's meat juice, may be given every hour or two by mouth. Bovinine is also a useful preparation here. When any of these are retained satisfactorily, the bulk of food may be gradually increased and given at longer intervals. That food must only be given in small and oft-repeated quantities is a *sine quanon* in treating the disease at this stage.

Where vomiting is not urgent, boiled water or barley water should be given freely, especially if the diarrhœa is excessive, in order to rinse out the gastro-intestinal tract and to supply a part of the fluid lost. Barley water, on account of its soothing effect on the alimentary mucosa, is perhaps preferable to simple boiled water; barley water contains a slight amount of nourishment also, and appeals more to the parents and friends.

Lime water sometimes answers better than either of the above, as from its sedative and astringent properties it is more likely to relieve vomiting and diarrhœa; its power over barley water in this disease is not as great as one would expect however. In older children, thin arrowroot and rice water are also useful. Broths made from mutton, veal, or chicken, with all fatty particles removed, and mixed with boiled water or

barley water, form the most satisfactory diet in this stage of the disease. To make it palatable for very young children, the mixture should be sweetened with white sugar, or, better still, milk sugar. Along with this food the meat essences should be used, giving them alternately or adding them to the broth, which should not be hot.

The exclusive use of animal broths is necessarily limited to a short time. To continue using them exclusively is to starve the child, and too long starvation is often a fatal mistake. Meat essences supply a greater amount of nourishment, but this being comparatively small, even their utility is restricted. A change must be made then, if the child is to gain in weight and be contented with its food. In most cases a return to milk food will be accomplished successfully after an interval of two or three days, providing the milk be peptonised and well diluted, and given in small quantities to begin with.

In some of the more severe cases of zymotic enteritis, however, the return to milk food provokes the diarrhœa and increases abdominal pain. Milk food may have to be withheld for several weeks. It is in these cases that raw meat juice proves so serviceable; the writer cannot speak too highly of its value in this connection. It is very nutritious, containing a large amount of proteid, and in virtue of its richness in extractives very stimulating. It is also rich in mineral matter, and possesses valuable antiscorbutic properties. Above all, raw meat juice properly made is easily digested and readily taken by children.

The best way of preparing raw meat juice is to mince up finely raw rump steak and allow it to soak in four times its bulk of *cold* water (the water being always first boiled) for half an hour. The pieces of meat are then squeezed in a piece of muslin and all the juice thus extracted.

There are certain precautions necessary in the preparation and use of raw meat juice. The meat should always be soaked in *cold* water; the juice should be perfectly fresh and above suspicion, therefore it may be necessary to prepare it three or four times daily; after being made, raw meat juice should be kept covered in a cool room to which there is free access of air, and it should never be administered in a hot medium.

Raw meat juice may be given *per se*, a little sugar being added to make it acceptable to a fastidious child. Cautiously prescribed, raw meat juice may entirely replace the proteid in cow's milk. Commencing with a teaspoonful or less, thrice daily or every four hours, it may be increased to two or three ounces in twenty-four hours, according to the age of the child. The best index as to the amount capable of being digested is the stools of the patient. With the addition of cream and sugar, the deficiency in hydrocarbon and carbohydrate is made good; and providing cream can be procured fresh, this may be given with raw meat juice at a comparatively early stage in zymotic enteritis, as it is easily digested in most cases. Owing to its laxative effect, due care must be exercised as to the quantity given at first. Where it cannot be had fresh, or is prohibited for pecuniary reasons, cod-liver oil may be substituted, and this is quite as efficient. If cream prove too laxative, fat may be supplied to the body by rubbing in the cod-liver oil; to disguise its objectionable odour when exhibited in this manner, a little linimentum saponis co. (B.P.) should be mixed with it. The question of supplying fat to the economy in zymotic enteritis does not seriously arise until the child is on the high road to recovery, and at this time it will generally tolerate cream or bear the inunctions of cod-liver oil.

Bread jelly is also a useful food in zymotic enteritis. It is deficient in all the elements required in a food except the carbohydrate, and to obtain a sufficient quantity of this the child would be called upon to consume an amount of bread jelly too large to be dealt with satisfactorily by its digestive organs. Therefore, mixed with water alone, it can only be of service temporarily. However, it is very soothing to the mucous membrane of the alimentary tract, and mixed with raw meat juice and cream in suitable proportions, a little sugar being added, a complete food results. If the jelly is made from bread composed of "seconds" flour, it contains a larger amount of proteid and mineral matter. Bread jelly is prepared by soaking a thick slice of stale bread (two or three days old) without crust in cold water for six or seven hours, so as to get rid of any injurious material that may be present in the bread; at the end

of this time the bread is squeezed dry and boiled slowly in a pint of fresh water for a couple of hours. (This enables the process of starch conversion to be more easily accomplished by the digestive organs.) The gruel thus obtained is first strained and next rubbed through muslin or a *fine* sieve and put by to cool, when it soon becomes a jelly. When required for use, a sufficient quantity of the jelly and water (first boiled) are mixed to form a food which will be easily sucked through the bottle; about half an ounce of jelly to eight ounces of water will be the proportions. Bread jelly keeps badly, and the precautions mentioned in the preparation of raw meat juice should be observed here.

In the later stages of zymotic enteritis, and in a great many cases, in the earlier stages, when vomiting has ceased to be troublesome, weak peptonised milk can be added to bread jelly, the dilution being lessened and peptonisation abolished gradually as convalescence proceeds. Fat of course must be supplied to bring the food up to a standard one.

Progress of the Medical Sciences.

MEDICINE.

Typhoid fever has produced such terrible results in our African army that its prevention and treatment are of special interest at the present time. Whatever the report of the Commission may be upon the management of the sick at Bloemfontein, no one doubts the prevalence of this scourge either in South Africa before the war, or among the troops in India, where the losses produced by it have been increasing annually for some time. In 1897 one-third of all the deaths in the British army in India were due to it. That is to say, 638 men, or about 9 per 1000 of the total strength, were killed outright, and another 1,500 were invalided for perhaps six months. Yet this is at a time when the mortality of the Indian troops from every other disease is being reduced, till their health compares very favourably with that of soldiers at home. Extraordinary efforts have been made by the government to get rid of this scourge, but in vain.

There are all kinds of theories as to the cause of the infection. It is clear that the officers and the younger men are the most susceptible, but how the infection spreads is unknown. In many instances the water supply is perfect, but still the spread of the disease goes on. The mortality, too, is terribly high—25 per cent., instead of the 4 per cent. of the German army, the 7 per cent. of American and other hospitals under the Brand treatment, and the 15 to 18 per cent. of most English institutions. In our late frontier campaigns, and among the American troops which had returned from Cuba, there were especially bad epidemics.

Professor A. E. Wright has been allowed a trial of his serum, as is well known, and the results in Africa are anxiously awaited. It is to be regretted, however, that large bodies of men were permitted to imperil the credit of the method by undergoing a single inoculation only, instead of two or three. The serum is a pure culture of the bacillus, which has been subjected to a temperature of 60 centigrade. Animals thus inoculated become highly resistant to infection, and in human beings the same Widal reactions appear as are seen after an attack of ordinary typhoid, and last for at least a year or two, and possibly much longer. After a few trials in the Soudan, 2,855 men were each inoculated once in India,[1] with the result that only .95 per cent. were attacked, instead of 2.5 in the uninoculated, or a reduction of two-thirds of the usual number of cases; while the mortality of those attacked among the inoculated was little more than half that among the others. These figures, too, do not represent the full gain, since the inoculated were new-comers, in whom the rates would usually be much higher. At present nothing can be learnt as to the success of the method from the fragmentary reports which have come from Africa.

The report of a commission to the American Government[2] shows that everyone of their regiments in 1898 were attacked by typhoid soon after they went into camps, and the facts showed once more that the contagion did not arise *de novo*, but depended on a specific germ which was conveyed from one patient to another. The chief modes of infection seemed to be by flies, dust, and personal contact, rather than by contaminated water supplies. Indeed, a regiment appeared to carry the disease with it across the ocean when their clothing and belongings had become infected.

The urine of typhoid patients is a frequently over-looked source of infection. W. H. Park showed sometime ago that the bacilli exist in it for weeks after convalescence, and recommended urotropine as a means of destroying them. They are not found for, perhaps, the first twenty days of the illness, nor do they occur in the urine of every patient; but they are a

[1] *Brit. M. J.*, 1900, i. 122. [2] *Phila. M. J.*, 1900, v. 1315.

serious danger to others in the many cases where they do exist, and they frequently produce a form of cystitis in the patient himself. Horton-Smith[1] points out that urotropine gets rid of the bacilli and the cystitis, making the urine clear in twenty-four hours. It has little effect in the acid cystitis due to the bacillus coli, but in typhoid or ammoniacal cases the results are rapid and certain. A dose of ten grains given three times a day for a week, and sometimes for a shorter period, gets rid of the bacilli completely. No such remedy has been found for the infection of the gall-bladder, which is said to occur almost universally,[2] and may last for twelve or fifteen years with or without symptoms. Various forms of local trouble may result, such as cholecystitis, perforation, gangrene; and possibly even gall-stones, it is thought, are often deposited upon a clump of bacilli as a nucleus.

Two startling and remarkable changes in the **treatment of typhoid** have been advocated by several thoughtful writers, though their arguments are not convincing. The first is the use of a fuller diet which Barr, Shattuck, and others have advised. Bushuyev treated 318 patients with apparently good results on a much relaxed diet, and Marsden, at the Monsall Fever Hospital, allowed the milder cases in a group of 200 to go on to fish, bread, chicken, and minced meat as soon as the appetite and tongue improved. Half his cases were on fish before the temperature was normal. No perforation and few hemorrhages occurred, while recoveries were rapid and with few complications. Manges[3] gives an able review of the arguments in favour of a change. The other point is the permission for mild cases to step in and out of the bath themselves. This method has been adopted by some American and Australian authorities. Wilson and Salinger[4] at the German Hospital in Philadelphia give a bath whenever the temperature reaches 101.4°, and the less severe cases walk from their beds as often as necessary. In no instance have bad effects been observed by them. We may add that their paper shows incidentally the enormous value of the Brand system itself, the proof of which lies on a very different basis. They discuss 1904 cases treated in Philadelphia hospitals with a mortality of only 7.5 per cent. Hare, of Brisbane, records the same mortality in about the same number of cases. Thompson, of the Roosevelt Hospital, shows only 6.8 per cent. in 368 patients, using, at least, of late, artificial Nauheim water for the bath; and the Bellevue Hospital 9.6 per cent.

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The boundaries of the **rheumatic group of affections** are continually changing. Many diseases formerly included are

[1] Goulstonian Lecture, 1900; *Brit. M. J.*, 1900, i. 827.
[2] *Brit. M. J.*, 1900, i. Epitome, p. 93.
[3] *Med. Rec.*, 1900, lvii. 1. [4] *Phila. M. J.*, 1900, v. 510.

now turned out and others are taken in. Thus the septic, gonorrhœal, tabetic, and rheumatoid forms of arthritis are seen to be distinct, while certain febrile states in children and adults with endocarditis are clearly rheumatism even if no joint troubles exist. A third class, including many of the skin affections, chorea and chronic joint affections, takes an uncertain place according to the views of individual authors. Thus muscular rheumatism, a variety with very scanty pathology, has been placed in a fresh light by Leube, and Adler.[1] The latter lays down that the essential lesion here is an interstitial myositis due to the toxin of true rheumatism. This applies both to acute and mild forms, and both are, he finds, followed at times by endocarditis, and skin lesions such as peliosis and urticaria. Cases which come on after an injury are really the same, for here a patch of myositis has existed without symptoms until irritated by the strain. In persons who are subject to recurrent attacks, the infiltrated patches or nodules can be easily felt, and when pain commences it is situated in these spots. Indurated patches may also be found sometimes in persons who have had cardiac troubles without joint affections. As to treatment the writer recommends salol, and the use of an ice-bag, together with careful massage after the acute stage is over. A skilful masseur can often detect these masses of induration in unsuspected quarters such as the rectus abdominis, or even the scalp, when the large superficial muscles of the back are free from them.

In speaking of treatment, we may allude to a method which is extremely useful in some cases of lumbago and of sciatica. Pure strong hydrochloric acid is painted on the skin in parallel lines by a glass or wooden rod. A surface of perhaps three inches square over the course of the nerve, or where the pain is most severe, is thus treated, allowed to dry, and then covered with cotton wool. No irritation or soreness of the skin is usually felt, and the painting can be repeated for several days. A large number of cases are found to be cured after a few applications, and others are relieved.

A. P. Luff[2] acknowledges that there is an affection of the muscles in true rheumatism, and he employs it as one of the diagnostic signs for separating that disease from rheumatoid arthritis and gout. The other positive signs of rheumatism on which he relies are: the way in which the attack flies from joint to joint, while those first attacked rapidly become normal again, without bony outgrowths or lipping of cartilages; the frequent presence of skin affections; and the improvement following the use of salicylates.

On the other hand, the means of distinguishing rheumatoid arthritis are daily becoming more complete. The labours of Wohlmann and Bannatyne on its pathology seem to have been

[1] *Med. Rec.*, 1900, lvii. 529. [2] *Practitioner*, 1900, lxiv. 491.

at last completed by the reproduction of the disease in animals. Von Dungern and Schneider[1] obtained a small diplococcus from the joints and gall-bladder of a patient. This they cultivated and injected into the joints of animals, with the result that the lesions found in the original patient were reproduced. Other organisms in control experiments produced suppuration, but erosion of cartilages was the work of these diplococci alone. It is, however, probable that there is more than one variety of the disease, and even a non-bacillary form, the mono-arthritis of the aged, which presents similar symptoms to true arthritis. An attempt at classifying the various types of this disorder has been made by W. Armstrong on a causal basis Thus he groups together the cases which occur after gout, or true rheumatism: those which appear in phthisis, after uterine disease, after much intestinal fermentation, and those in nerve diseases. There is much difference between some of these types in reaction to treatment, but the difference is not unlikely to depend on the resisting power of the sufferers rather than on specific varieties in the disease. Clinically, we may make a useful classification from the schemes put forward by Garrod,[2] Bannatyne and others:—(1) A form seen in children with enlargement of the spleen and glands. There is a symmetrical affection of many joints which show neither anchylosis nor bony outgrowths, though there is great thickening of the tissues around the joints.[3] (2) A more or less acute type, most common in young women, and often following some acute infectious disorder. This is called the "fusiform" variety, from the shape of the joints of the hands, which are attacked symmetrically and show much effusion but no bony outgrowths. The terminal joints of the fingers escape, while the neck and, for a time at least, the temporo-maxillary joints are involved. There is much muscular wasting, but no bony anchylosis takes place. (3) "The crippling form" commences often in early adult life, and here many or all of the joints in the body tend to become rapidly attacked one after the other, and to be completely fixed. Large bony outgrowths and remarkable deformities result, and the prognosis is of the gloomiest kind. (4) "The nodular form," seen in elderly persons, especially in women, progresses but slowly, and often begins in the ball of the thumb. Especially noticeable are the bony enlargements of the terminal phalanges of the fingers, or Heberden's nodes, which are never seen in the fusiform type. The other phalanges and larger joints are often involved, but here, too, we find chiefly changes in the bones rather than in the soft tissues, yet anchylosis is rare. These are the cases which used to be called chronic rheumatism of old people. (5) Senile osteo-arthritis, affecting only one or two joints, preferably the hip, and often

[1] *München. med. Wchnschr.*, 1898, xlv. 1369. [2] *Practitioner*, 1900, lxiv. 514
[3] G. F. Still, Allbutt's *System of Medicine*, vol. iii., 1897, p. 102.

coming on after a blow, is probably quite distinct in origin and most unsatisfactory as to prognosis.

An early recognition of the disease which we have to do with is of the greatest importance, since both the food and medicine desirable differ from those in true rheumatism or in gout. In arthritis it is sometimes possible to discover the source of the infection, *e.g.*, a uterine erosion or a chronic intestinal fermentation. If these can be removed and the patient placed on an abundant nitrogenous diet, with cod-liver oil, iodide of iron, tonics, and hot-air baths, the disease may sometimes be arrested altogether. Garrod's view is probably correct that the most hopeful variety is the fusiform, where satisfactory results are not uncommon if the treatment is well chosen and continued for a long period.

* * * *

It seemed not long ago that we were reaching some kind of settled agreement as to the origin of **gout**, thanks to the labours of Garrod, Roberts, and others; but every branch of the question has been re-opened recently. Thus uric acid was thought to be formed in the kidneys by a sort of perverted metabolism; but Horbaczewski pointed out a source in the nuclein of broken-down leucocytes, which raised the question why leukæmia does not cause gouty symptoms since the amount of uric acid formed is so great. The answer given was that gout is due to the retention of uric acid, while with healthy kidneys any excess in leukæmia or similar states is got rid of. Vaughan Harley, however, showed that the relation between an increase of white cells and of the uric acid excreted even with healthy kidneys is not fixed. Then it was found that uric acid could come from the nuclein in the food consumed, and unfortunately for the retention theory a gouty patient to whom thymus gland containing much nuclein was given showed an increased excretion of uric acid. W. J. S. Jerome[6] and others go further, and derive it not only from nuclein in the food, but also from hypoxanthin and other alloxuric bodies also found in the food. Thus it is increased by a meal of fishes' roe or Liebig's extract. C. C. Douglas[7] indeed would deny its origin from leucocytes at all, pointing to the fact that there is no increased excretion of phosphoric acid accompanying that of uric acid, which should be the case if leucocytes were the source. Halliburton[8] in his late introductory address laid stress on the common radicle purine possessed both by uric acid and the alloxuric bodies, while Ebstein at Paris questioned the importance in gout of the uric acid which was derived from the food taken. Indeed, A. C. Crofton[9] goes further still, and considers that uric acid, from whatever source it is derived, is quite harmless, except from

[6] *J. Physiol.*, 1899–1900, xxv. 98, and *Brit. M. J.*, 1900, i. 32.
[7] *Edinb. M. J.*, 1900, N.S. vii. 32. [8] *Lancet*, 1900, ii. 447.
[9] *British Physician*, March 15, 1900.

the risk of its forming concretions, that in uric acid we have the safest mode of getting rid of broken-down nuclein from the system, and that the harm usually attributed to it is caused by alloxuric bodies. Indeed, he has actually brought about kidney lesions, such as may be found in gout, by injecting some of these bodies, while uric acid introduced in the same way produced no such effect. Minkowski also by administering adenin, which is akin to hypoxanthin, produced a crystalline deposit in the kidneys. This view is however consistent with the theory that uric acid is a mechanical cause of the joint troubles in gout. Indeed, Freudweiler[1] claims to have produced local changes similar to those in gout by injecting uric acid into the tissues.

In other branches of the subject similar activity has been shown. A. P. Luff[2] has finally disposed of the old idea that the blood in gout shows acidity, or is at least less alkaline than usual. As a matter of fact, he finds the alkalinity is a third higher than normal; and as it is due of course to sodium bicarbonate, which favours the deposition of urate of soda crystals, we can understand why attacks are prone to occur in such persons. Luff goes on to argue that uric acid occurs in the blood in three forms—an unstable quadriurate, a gelatinous biurate, and then a crystalline and insoluble biurate. If we can delay the change from the gelatinous to the crystalline form while elimination is going on, the irritant matter may be got rid of altogether. Such a delay is produced by potassium salts, and to some extent by lithium and piperazine. Vegetables such as spinach, winter greens, turnips, celery, and French beans also delay this conversion, and are therefore useful in gout. The harm done by certain wines is not due to any supposed "acidity," but to some irritation of the liver which they cause. The value of colchicum, on the other hand, depends on its power of lessening the formation of uric acid—another fact which has been observed but not explained. Guaiacum resin, according to Bain's[3] experiments, greatly increases the excretion of uric acid, and is recommended in twenty grains doses twice a day for a fortnight at a time. A rather serious attack on the theory of quadriurates has been made by Tunnicliffe and Rosenheim,[4] which, if proved, would render doubtful much that has been asserted. They maintain that quadriurates are merely varying mixtures of uric acid and biurates, and when prepared according to Roberts' direction, and analysed, the composition is irregular. The important thing is that uric acid in this form is a freely soluble substance, but at a later stage it tends to precipitate in crystalline form. If, as Luff says, it is possible to put off the

[1] *Am. J. M. Sc.*, 1900, cxix. 459. [2] *Brit. M. J.*, 1900, i. 836.
[3] *Lancet*, 1900, i. 1444, and *Brit. M. J.*, 1900, i. 834.
[4] *Lancet*, 1900, i. 1708.

moment of crystallisation and to get rid of the poison in the meantime, we have saved the patient from an attack.

* * * *

A method of treatment for **burns produced by carbolic acid** seems worth recording here. Phelps and Powell[1] believe that these injuries can be prevented by quickly bathing the parts in strong alcohol, and to some extent this is true. Pure carbolic acid can be poured, for instance, over the hands without harm if they are at once washed in alcohol, not because the alcohol forms any chemical compound with the carbolic, but probably because it washes it away completely. It has been recommended to wash out the stomach with alcohol when carbolic has been taken by the mouth, and some remarkable recoveries have followed its use.

G. PARKER.

SURGERY.

There is naturally much uncertainty as to what constitutes a **movable or wandering kidney.** The kidney possesses a normal movement with respiration of from one to two inches. Mansell Moullin[2] regards the failure of the kidney to ascend after a forced inspiration as a satisfactory test, even if the kidney only comes down low enough to enable its inferior extremity to be felt. In other words, the term movable kidney is a term which is relative to the movements of the diaphragm. Moullin has gone rather fully into the anatomical and theoretical considerations of the subject, and the following is an abstract of his remarks.

The kidneys are invested by the peri-renal fascia, a specialised portion of the sub-peritoneal tissue, re-inforced on the left side by certain ventral fibrous bands (Zuckerkandl). The fascia consists of anterior and posterior layers, blended externally, but separate to the inner side and below. The kidney moves freely in this capsule normally. Within this capsule, and immediately investing the kidneys, is a special fatty capsule, of a soft, delicate structure. That the outer renal capsule is not the sole factor in the retention of the organ is shown by the fact that if the abdomen be opened with the body in the erect position the kidneys fall, as if retained *in situ* by the abdominal pressure. The suggestion is thrown out that the frequency of movable kidneys on the right side may be due to a greater shallowness of the lumbar region there, owing to rotation of the tranverse processes of the vertebræ in association with the lateral deviation of the lumbar vertebræ to the left, compensatory to the deviation to the right in the dorsal region of right-handed persons. It cannot be said that the origin of movable kidney is definitely known, but if this view were correct then the left kidney should be

[1] Merck's *Archives*, December, 1899. [2] *Brit. M. J.*, 1900, 1. 566.

more prone to dislocation than the right in left-handed people, an assumption which seems improbable.

A new method for fixing a movable kidney has been proposed by L. L. McArthur.[1] It consists in making a transverse incision below the last rib and stripping up the peritoneum to the middle line posteriorly. A pocket is then made in the lumbar aponeurosis behind, and the lower end of the kidney is put in the pouch so formed. Whether the kidney was designed to be put into such a pocket is doubtful, and the method strikes one as being unnecessarily severe in view of the adequate procedures in vogue.

* * * *

The treatment of **enlarged prostate** is at present in an uncertain state. Dr. Wallace[2] has reviewed much of the recent literature on the subject. As regards *drainage*, the perineal route is preferred by Dandridge,[3] who thinks it safer with patients who have damaged kidneys. Sepsis plays an important part in the mortality of cystotomy. Poncet[4] quotes 117 cases, the average mortality being 25 per cent., but the mortality was three times as great in cases with septic urine as in cases in which it was aseptic. This corresponds with the statistics of Barling, who collected 169 cases of cutting operations for stone in the London hospitals. The mortality by the perineal route, in which the drainage was naturally better, was only one-third of that by the supra-pubic route. Supra-pubic drainage has, however, been much improved by the introduction of suction-drainage on the principle of the Sprengel air-pump.

The results of *vasectomy* for enlarged prostate are uncertain. In some cases the results are highly gratifying; in others, such as in carcinomatous or hard fibroid prostates, the results are disappointing. In yet another group there is some physical change in the bladder which minimises the effects of vasectomy. Reginald Harrison has considered these physical conditions from observations of prostates subsequent to vasectomy some time previously, in all of which there was evidence that the prostate had become shrunken as a result of operation,[5] although the natural powers of micturition were not regained. Harrison concludes that (*a*) vasectomy usually induces shrinkage, (*b*) which may facilitate the introduction of a catheter but not restore expulsive power, which is (*c*) associated with pouching and trabeculation of the bladder. This sacculation of the bladder is sufficient to throw the natural powers of evacuation out of gear, and cases are cited in proof of this point.

The inference drawn from these observations is that if vasectomy were resorted to at an earlier stage, *i.e.* at the stage when catheter life is usually commenced, then the expulsive

[1] *Boston M. & S. J.*, 1899, cxli. 27. [2] *Scottish M. & S. J.*, 1900, vi. 77.
[3] *Ann. Surg.*, 1899, xxx. 28, 103.
[4] *Bull. Acad. de Méd*, 1898, xl. 64. [5] *Lancet*, 1900, i. 1275.

power of the bladder might be retained. Moreover, Harrison re-affirms that the sexual power persists when vasectomy alone is performed, but when the testicles are removed it is lost.

Bottini's operation has for some time past been revived in America, and as Dr. Willy Meyer says the operation has "come to stay," it may be well to consider the facts of the case as stated by him,[1] more particularly as the operation is applicable to cases in which vasectomy is useless. The cases, of course, require selection. Large doses of quinine are administered before and after operation. The knife is sterilized before use. The requisite electric current is obtained from the main with the help of an alternator and rheostat, or else from a storage battery with ampère-meter specially charged. In the words of Bottini, the technique requires adroitness and care in order to avoid annoying surprises. The whole operation is performed with rigid asepsis. A soft boiled catheter is partially introduced, the anterior urethra irrigated out, and then the catheter passed into the bladder. The bladder is then well irrigated and sterilized eucaine solution is injected. The current should be strong enough to turn the knife to a white heat. The instruments are finally prepared, and after five minutes the eucaine solution is withdrawn from the bladder. Then the anterior urethra is treated with eucaine solution and the instrument passed. The electric and iced-water connections are fixed, and "the prostate well hooked with the beak of the incisor exactly in the median line"—an essential point. The right forefinger is passed into the anus to test the position of the beak of the instrument. The current is turned on to the desired strength, while the operator waits about fifteen seconds for the knife to become properly heated. Then three cuts are made—one in the middle line and one in each lateral lobe, the median and most important one being made first. The suprapubic region is auscultated meanwhile, to make sure of the working of the instrument by the "sizzling" noise. This cauterization process takes ten minutes, and a final irrigation of the bladder seems unnecessary. If the patient begins to urinate voluntarily afterwards, the after-treatment is simple and the surgeon should not interfere. If there be much swelling of the gland afterwards, with retention, or if urethral fever supervenes, then difficulties arise. An anterior incision should be avoided for fear of causing inflammation of the cave of Retzius and possible death, as occurred in one case. The patient must be watched for three weeks, for hemorrhage is liable to occur during the second and third weeks. The cystoscope may first be used in all cases of doubt to determine the prostatic contour. The bladder is best injected with lotion for the purposes of the operation, for if air be used, there is probably some risk of air-embolism of the inferior vena cava.

[1] *Med. Rec.*, 1900, lvii, 705, 793.

One of the most difficult points to determine in Bottini's operation is the exact length of the incision desirable, for the surgeon works in the dark. Some idea of the length of the prostatic urethra can be gained by estimating the excessive distance a catheter must pass before a flow of urine commences, also by rectal palpation and measurement with the forefinger. When, however, the glandular elements predominate, or a pedunculated middle lobe exists, then no accurate estimate can be made. "That the occurrences here mentioned may often put the operator into a most annoying position will readily be admitted," says Meyer. Indeed, in reading Meyer's paper, one is struck by the numerous difficulties and dangers liable to present themselves, suggesting that the instrument may be a source of danger even in the best hands; and in view of these dangers and the very great pathological variety of enlarged prostates, I should require great persuasion to do Bottini's operation myself. Some of the dangers indicated are as follows:—1. Perforation of the bladder, owing to a part of the base of the bladder being caught up by the beak of the instrument. 2. Perforation of the urethra, from too long an incision with the electric knife, or an unexpectedly compressible prostate. 3. Bending of the knife. 4. Giving out of the battery. 5. Urethral fever. 6. Septicæmia and pyæmia. 7. Pulmonary embolism. 8. Absolute retention. 9. Hemorrhage; this comes on in the second or third week, when the sloughs separate; the surgeon should abstain from washing the neck of the bladder for the first few weeks, so as to lessen the danger of this. 10. Painful spasms at the neck of the bladder—a common complication.

If painful spasms and inability to urinate be apparent some time after operation, they are an indication of its incomplete performance and of the necessity to repeat the operation. Recurrence is stated to be very rare.

With regard to the advantages of the operation, the relief from the painful spasms and the increase of the patient's weight are the chief. The chronic constipation is usually relieved, the symptoms caused by cystitis are removed, and in a fair proportion of cases the turbidity of the urine disappears.

As to the indications for Bottini's operation opinions differ. Meyer thinks the operation should be done at the time when the patient is usually given the catheter to pass on himself; and that the operation is one which, according to statistics, has the lowest mortality and the highest percentage of cures.

Meyer has operated thirty times on twenty-four cases. In nine cases there was a lasting cure, and seven cases were much improved. There were two immediate and several remote deaths after the operation. Cures were about 30 per cent., improved cases rather under 30 per cent., and the mortality 16 per cent.

T. CARWARDINE.

DERMATOLOGY.

The Light Treatment in Lupus.—This very important topic, which is a matter of great interest, has recently been practically tested at the London Hospital under the direction of Dr. Stephen Mackenzie. We extract the following resumé of the methods and the results observed from the *British Medical Journal*[1]:—The principles of the light treatment are mainly three: (1) That the chemical rays of the sun or of the electric light can produce an inflammation of the skin; (2) that they can produce an effect through the skin; (3) that they can kill microbes on, in, or close under the skin. Wildmark has advanced evidence that sunburn or erythema solare is due to the action of the ultra-violet rays, and Finsen showed that this effect is shared, but in a less degree, by the other more refrangible rays of the spectrum, the visible violet and blue rays. Godneff advanced a step further when he showed that these chemical rays can blacken silver chloride when placed in sealed glass tubes under the skin of animals, and Finsen demonstrated that this effect was more certain and greater quantitatively when the intervening tissues were rendered approximately bloodless. That sunlight could kill microbes was first proved by Downes and Blunt, and this bactericidal power was shown to depend especially on the blue, violet, and ultra-violet rays. To produce a sufficiently vigorous effect of utilisable therapeutic value it is necessary to concentrate the bactericidal chemical rays and eliminate the burning rays. Concentrated chemical light, used after the manner of Finsen, it was then discovered, would kill most pathogenic organisms, when growing on a thin film of agar, in a few seconds. The problem, therefore, is how to bring to bear on the micro-organisms contained in the tissues of the skin a concentrated yet cool light, or more strictly the chemical rays of light, both visible and invisible, freed from the heating and illuminating rays. In Finsen's apparatus the power of water is utilised to absorb the ultra-red or most caloric rays, and that of blue substances dissolved in it to absorb many of the red and yellow rays. In the case of the sunlight, a hollow plano-convex lens, 8 to 16 inches in diameter, containing a bright blue ammoniacal solution of copper sulphate, is the essential part in achieving these objects. But the resulting light is still too warm for purposes of treatment, so a further cooling mechanism is requisite, and this is applied in the course of the rays just before they enter the skin. It is a hollow lens similar in shape to that just described, but only about an inch in diameter; it is provided with inflow and outflow tubes, through which cold water is kept constantly circulating; and that it may not only be used to cool the light and the skin, but also to exert pressure on the area of the skin to be treated, and thus render it approximately bloodless, it is

[1] *Brit. M. J.*, 1900, i. 1595.

provided with four metal arms diverging from the brass rim to which elastic bands may be attached, so that they can pass across the head or other part, and exert constant traction on the pressure lens. If from any reason the use of sunlight is impossible, then an electric arc lamp of 50 to 80 ampères current (not an incandescent lamp) is used, as its light is very rich in chemical rays. It is necessary that the divergent rays from such a lamp should first be rendered parallel before being converged, concentrated into a focus, and cooled. Shortly described, the apparatus used is a telescope, the large end of which is placed next the lamp, having lenses made of quartz or rock crystal, which itself can absorb heat rays, and between two such lenses a length of tube filled with distilled water (copper sulphate solution is not now needed, seeing that the chemical rays are so plentiful), around which cold tap-water is made to circulate, in a sort of water-jacket, that absorbs still more of the caloric rays. The selection of the source of the chemical rays, whether lamp or sun, depends on the following considerations. The local effects of the light from the electric arc lamp have been found from experience to have, if anything, rather greater therapeutic efficacy than those from the sun, and at the same time the rays have much less heat effect. But in summer when the sky is clear sunlight is preferred, partly because it is not costly, as the electric light certainly is, and partly on account of the beneficial general effects of the open air during the lengthy *séance*, included in which is the psychical influence of the bright sunshine. A diseased area of skin should be selected for treatment by Unna's method, which consists in pressing on the reddened skin with a glass spatula; this renders the comparatively healthy tissue anæmic and reveals any yellow lupoid nodules that may be present. The skin is cleansed with oil of sesame, and the diseased area is ringed with an aniline blue pencil. A piece of moistened lint with a hole in its centre corresponding with the size of the blue ring is then applied to the skin, and the patient is ready to receive the concentrated light. A spot of light about the size of a sixpence (1.5 c.m. or $\frac{3}{5}$ inch) is allowed to fall on the skin, so that a red ring is visible at the periphery when it is known that the more refrangible violet rays are focussed within it. Dark spectacles are used by the nurses while they keep the cooling lenses firmly pressed on these areas (or elastic may be used instead). It is obvious that before a patient can tolerate even the comparatively slight pressure all raw skin must first be healed by suitable applications. Patients say that the light as it reaches them feels just moderately warm. At the London Hospital, after the area of skin selected for the day has received its hour's treatment, a dressing of zinc carbonate and lanolin is applied (but if suppuration should subsequently occur, as it very occasionally may, a boric ointment is used), and the patient is allowed to leave. There is

at the time no redness, or swelling, or pain—in short, no heat effect; but from six to twelve hours later redness and swelling set in, but without pain, a reaction which is more marked in the skin of the younger patients. At the end of twenty-four hours the reaction is fully developed. Bullæ often form, and there is usually some serous weeping; but there is rarely pustulation, and never necrosis of tissue. The plan adopted at the London Hospital in attacking any diseased area of considerable size is to begin at the periphery with a circle of rings overlapping healthy skin, and to work concentrically inwards. The tubercle bacilli are destroyed, but the healthy skin is unaffected; the redness persists for a rather long time, and then comes the process of contraction, which leaves a flat, smooth, soft cicatrical area. The local treatment should be supplemented by appropriate constitutional treatment. As a matter of experience, at the London Hospital, Dr. Stephen Mackenzie says there is a gain in weight under the local treatment alone. In no case has any pyrexia been produced. The drawbacks of the method are: its slowness, taking months; the impossibility of treating with it the affected mucous membrane because of the hitherto insuperable difficulties of focussing the rays to curved surfaces. At the London Hospital the diseased mucous membranes are treated after the ordinary fashion by iodine or lactic acid. The treatment cannot with confidence be carried on with the lenses at present in use near the eye, for fear of implicating the conjunctiva; but in practice the eye is protected by a pad of damp wool, covered with a piece of brown paper. The advantages of the method are, that the results are better than by scraping; there is no pain, there is no scarring.

HENRY WALDO.

Reviews of Books.

The Anatomy of the Central Nervous System of Man, and of Vertebrates in General. By Prof. LUDWIG EDINGER, M.D. Translated from the Fifth German Edition by WINFIELD S. HALL, M.D. Pp. xi., 446. Philadelphia: The F. A. Davis Company. 1899.

This is an old friend in an enlarged and revised form. Its unquestionable value as an introduction to the minute study of the nervous system entitles it to the consideration of everyone interested in that intricate mechanism.

Its greatest merit lies in the fact that it teaches us the anatomy of the brain and its addenda from the point of view of comparative anatomy, which is certainly the only true method. The structure of the nervous system is placed before us in its simplest condition, and step by step elaborated in the animal series till its complexity reaches its climax in man. This well-nigh unintelligible maze, as usually approached in text-books, has now been for the most part rendered perfectly clear by the method of Edinger, and he has brought to bear on it a mass of knowledge which perhaps he alone would be able to supply.

How comparatively simple is the structure of the spinal cord and that of the medulla oblongata when dealt with as it is here; and how forcibly one is struck with the fact that after all the medulla is but a specialised part of a column of which the spinal cord forms the greatest part! It is shown that upon a collection of nerve cells and fibres, intrinsic to what we call the cord, is built a superstructure which places that simple cord in relation with parts in front of it, adds to its bulk, complexity, and utility, and which at the same time reduces its almost regal position in some lower vertebrates to that of comparative serfdom as we find it in man! Instead of being confronted with a great complex of tracts, commissures, and cells, as is most commonly the case, we are introduced step by step to cell cohesions, to tracts formed by posterior nerve-roots, to intrinsic tracts—short commissural, to actual true commissures, and finally to three or four great tracts which place the cord in relation to that part which we usually term the higher brain. Thus we are introduced to such important pathways as the *tractus cerebello-spinalis*, which places the cord in relation with the cerebellum in all animals from cartilaginous and bony fishes to mammals; the *fasciculus longitudinalis posterior*, which connects the thalamencephalon and the various motor nuclei with the grey matter of the cord. Then that important sensory tract, the *fillet*, is introduced to us, perhaps not so happily as the others, as from the description one would get the impression that it was mainly a downwardly conducting path; and, moreover, from what follows it would seem that the tract of Gowers would seem to be included in this system, although such an impression is excluded when that tract is itself considered. Finally, we are brought face to face with that characteristically mammalian tract, the *pyramidal tract*. Such an impression as the above tempts one to read further, and we find the higher parts treated in the same rational fashion. We confess we should like to have seen further reference to well-known work on the morphology of the cerebral convolutions, especially that of our fellow-countryman Cunningham, and of our kinsman Elliot-Smith, whose admirable work on the lower mammalian brain has deservedly excited the greatest admiration, and we should have liked to have had the work rendered into more elegant English than it has been. Certainly it is no easy task to combine free

and literal translation of the German language, but we do think that something better than "fundament" might have been made of the word *anlage*. To be faced with "*Kupffer's fundament*" and with "*Froriep's fundament*" is unpleasant, to say the least; and we doubt if Edinger really meant to inform us that "The fibres thus passing through the corpus striatum lie in two masses. . . . The outer one is called the *nucleus lentiformis* and the inner one the *nucleus caudatus*." We think, too, that many of the illustrations, especially those concerning the comparative and embryological side, might be much improved. In many cases the descriptive letterpress is printed on the figures themselves, and the letters are so small and so confused with the figure that it is next to impossible to decipher them. On the whole, however, the illustrations are excellent, despite these drawbacks, which bear no comparison with the great merit of the work. This work stands alone in giving a really intelligible, concise view of the structure of the nervous system: as such it will continue to maintain the confidence which has hitherto been placed in it in its more modest form; in its enlarged and revised state, we shall be much mistaken if that confidence be not much enhanced. No practitioner and certainly no teacher ought to be without it.

Introduction to the Outlines of the Principles of Differential Diagnosis, with Clinical Memoranda. By FRED. J. SMITH, M.D. Pp. ix., 353. London: Macmillan and Co., Limited. 1899.

When one reads through this book with care, it is at once evident that a very great amount of thought and experience has been expended on it. Its chief aim seems to be the diagnosis of cases by working through the list of possibilities indicated by certain combinations of symptoms. The book is therefore full of elaborate classifications of symptoms, to each of which is attached a note on its importance in the diagnosis. There is very little to say about the subject matter; the book does not pretend to have anything new in this direction. All possible differential diagnoses are tabulated in columns, making a beginner think medicine is a finite science which merely requires a good memory to acquire.

If the book is meant for students, it is appalling in the amount of possibilities which a case may present. There are, for instance, elaborate tables on the diagnosis of various heart lesions; but by the time the symptoms are put together and fitted to the correct theoretical diagnosis, and applied to the patient, the mind is in such a muddle that it seems best to put it all on one side and start afresh. The chief fault lies in the fact that it is too theoretical and not clinical enough. It may be useful to the student as a book of principles, and may be recommended to

young teachers to look through before going over a particular class of case with the clinical clerks.

An Introduction to Diseases of the Nervous System. By H. CAMPBELL THOMSON, M.D. Pp. 123. London: Baillière, Tindall and Cox. 1899.

The author says that this little work is intended only as an introduction to the study of diseases of the nervous system; it is therefore written in a simple manner, and deals with a limited part of the subject, covering the ground indicated by his experience in teaching students. After a short sketch of the general structure of the nervous system and of its motor and sensory divisions, the main part of the book is taken up with a description of the actions of the muscles of the body. This description is clear and accurate, and just what a student needs in beginning the study of this subject. He will find this book of much service to him, and may depend on the information it gives him. The author has very wisely, by limiting his scope, avoided all risk of making his work a cram-book. The chapter on the localisation of injuries and diseases of the spinal cord requires to be amplified; it is at present too short to be of real service in what the beginner often finds a difficult subject. Otherwise, we can highly recommend the book, and the illustrations are good.

Clinical Studies in Vice and in Insanity. By GEORGE R. WILSON, M.D. Pp. xi., 234. Edinburgh: William F. Clay. 1899.

This book contains a number of well narrated clinical records, by the aid of which types of alcoholists, the alcoholic diathesis, and certain phases of insanity are studied; and which constitute a basis for careful and original reflections upon various subjects, clinical, pathological and therapeutical arising in connection therewith. In the preface, Dr. Wilson discusses some questions relative to alcoholism, the simplification of its nomenclature, the true character of the early mental stages, the nature and mode of progression of the alcoholic lesion, and the therapeutics. A brief account of the dendritic system of the cortex and of the dynamics of brain-function, is followed by the author's views on the pathology of alcoholic degeneration. He considers this to commence in a state of diminished excitability of the dendritic system, probably of trophic nature, and to be followed by all the effects that result from impaired conduction and activity in the higher centres (as positive lesions) and consequent excess in function of lower mechanisms (as negative

lesions). At first, fresh mental constructions are limited and initiative fails; later on already organised tracts succumb, and the function of discipline is impaired. Hence the most obvious and early of the effects of alcoholism is loss of purposive ability. The author discusses at length what he terms the tonic circulation of nerve force, and the essential part played in its maintenance by the dendritic layers. To the depreciation in this process he ascribes all the psychic symptoms of alcoholism; as negative and primary, the impairment proceeding to extinction of initiative, amnesia, anæsthesia, failure of corrective judgment; as positive and secondary, emotional manifestations, hyperæsthesias and false perceptions. His theories are applied in detail in the studies of aphasia and hallucination. The clinical records are instructive and interesting reading, and frequently interspersed will be found suggestive digressions, which evidence the thoughtful spirit in which the book has been conceived: there is also shewn earnest desire to grapple with the difficulties in the treatment of the insane class. Particularly commendable are the author's remarks concerning the need for the study of the patient's subjective state in a sympathetic spirit, and the conscientious avowal of his belief in the efficacy of mechanical restraint in certain cases: we cordially endorse his views. This work will well repay careful perusal. The publishers have produced it carefully.

A Manual of Modern Gastric Methods, Chemical, Physical, and Therapeutical. By A. LOCKHART GILLESPIE, M.D. **With a Chapter upon the Mechanical Methods used in Young Children.** By JOHN THOMSON, M.D. Pp. x., 175. Edinburgh: Oliver and Boyd. 1899.

Considerable advance has been made in recent years in the study and treatment of gastric disorders, partly due to improved apparatus, but chiefly to the more accurate knowledge of the chemical changes taking place in the stomach during digestion gained by systematic examination of its contents, and also to the recognition of the importance of the movements and degree of distension of the organ during and in the intervals of digestion. The literature of the subject has become very extensive, and the practitioner has probably, whilst anxious to move with the times, not been able to keep up with it. Further, authors are apt to recommend their own especial methods, and it is difficult for the practitioner with but a limited opportunity for testing them to know which is the best for his purpose. A book such as this one, which gives an account in moderate compass of the chief advances made in the treatment of gastric disorders by one who is an acknowledged authority on the subject, and

which at the same time gives clear directions as to the manner in which the methods recommended should be carried out, is just the very one required, and should meet with widespread success. It seems to us that Dr. Gillespie's work is admirably adapted to aid the practitioner in his work; it is not too long, it is clearly written, and it gives a sufficient account of those methods which will be found most useful in diagnosis, and of the indications which the information thus gained affords for treatment. Dr. John Thomson gives a useful chapter upon the mechanical measures advisable for use on children.

Raynaud's Disease. By THOMAS KIRKPATRICK MONRO, M.D. Pp. xii., 251. Glasgow: James Maclehose & Sons. 1899.

This essay contains a complete account of our present knowledge of Raynaud's disease. The history of its discovery, etiology, morbid anatomy, and treatment, are fully discussed in the light of practically all the cases which have hitherto been published.

One or two points, perhaps, seem open to criticism. It is a little to be regretted that the terms originally used by Raynaud, "local syncope" and "local asphyxia," are still employed when we now have more descriptive ones at command. In the discussion of paroxysmal hæmoglobinuria, it is not pointed out that hæmatogenous jaundice is in reality a urobilinæmia. And Haig's now discredited uric acid theories are stated without a word of criticism. But such matters are really trifling in comparison with the wealth of accurate statements and generalisations in which the book abounds, and which make it a most useful and valuable guide to a little-understood group of diseases.

A Manual of Surgical Treatment. By W. WATSON CHEYNE, M.B., F.R.S., and F. F. BURGHARD, M.D., M.S. Part II. Pp. xix., 382. London: Longmans, Green and Co. 1899.

The second volume of this publication maintains the high standard of excellence of the first, which was reviewed in this *Journal* (December, 1899). The subjects treated of are of great practical importance, and the interesting department of orthopædic surgery receives careful consideration. The subject of aneurysm, however, does not seem to us to receive the attention which its importance requires, though the information given is clear, and reference is made to questions of treatment still much discussed. We notice that in writing of the treatment of talipes equino-varus, Phelps's operation is favourably mentioned, and we are glad to see that the shortening of

the skin is considered an objection to Lane's subcutaneous modification of it. In describing his treatment of curved tibiæ the writer maintains that splints cannot straighten the curved bones, but that if the deformity is prevented from increasing by their use, and the child is kept off its feet, the bones will grow straight of themselves. We certainly agree with the writers that as splints are used in out-patient hospital practice they probably do not mould the bones into better shape. But when we consider the way in which the ribs are gradually bent by respiratory movement, and the pelvis deformed by pressure between the femora and spine, in cases of rickets, it seems reasonable to believe that if moderate pressure can be adequately maintained on the deformed bones, they may, by this means, be gradually straightened.

Although the authors still regard Macewen's operation for genu valgum as good treatment, we are interested to see that they consider division of the tibia just below the head equally good, and that they say either method will be satisfactory in the less severe cases, but recommend a combination of both in the more severe ones.

The operation of Trendelenburg for varicose veins is referred to, though Trendelenburg's name is not mentioned in connection with it; but the authors consider that the internal saphenous vein should not be operated on unless varicose in the thigh, and that even then if other veins about the level of the knee are also varicose, portions of these should be excised as well, for they think the communication between the deep and the superficial veins above the knee is so marked that ligation of the internal saphena alone will not sufficiently reduce the backward pressure in the veins.

Orthopædic Surgery. By J. Jackson Clarke, M.B. Pp. xix., 454. London: Cassell and Company, Limited. 1899.

The opportunities for studying deformities of children are so abundant in London that it is not to be wondered at that surgeons attached to the various orthopædic hospitals should from time to time produce fresh text-books on orthopædic surgery. Perhaps an undue number of such books have lately appeared, but the one before us is certainly one of the best. It may be that there is not much that is new in the volume. It seems to be reserved for a few men like William Adams, Macewen, Hoffa, Lorenz, or Lewis Sayre to open up new work in orthopædics, while the majority of us must be content to work along the lines they have indicated, and perfect in various minutiæ the proceedings advised by such pioneers.

Mr. Jackson Clarke seems to have made himself well acquainted with modern developments in orthopædics, and

displays an eminently fair and judicial spirit in dealing with the work of others. He is particularly cautious on the subject of forcible reduction in tubercular deformities of the spine, contenting himself by saying that while further experience is required before any final decision can be made, yet that a mechanical method of fixing the spine in the over-extended position is better than the plaster-of-Paris occipito-pelvic jacket, while cases treated from the beginning by efficient mechanical means will give as good results as those treated by forcible extension.

In the treatment of congenital talipes equino-varus we note with approval that he is not such an advocate for free tenotomy as many others, but pays much attention to constant and frequent mouldings and manipulations to correct the deformity. He rightly rejects the severe cutting operations, such as Buchanan's or Phelps's, for all except the severe relapsing cases of older children, but in our opinion the author much undervalues the use of plaster-of-Paris splints in young children.

The author gives us a good account of the symptoms and treatment of that peculiarly American affection "metatarsalgia," or "Morton's painful foot," but we are rather surprised to find no mention of excision of a branch of the external plantar nerve which has proved so efficacious in the hands of many surgeons.

The book is well illustrated, and is written in a clear and lucid manner. It will form an admirable students' text-book.

Anæsthetics: their Uses and Administration. By DUDLEY WILMOT BUXTON, M.D. Third Edition. Pp. xvi., 320. London: H. K. Lewis. 1900.

The third edition of this well-known work contains many important alterations and additions. Of especial interest are the chapters devoted to the administration of nitrous oxide gas, gas with air, and gas with oxygen. Mr. Buxton's statement that there is no advantage in using gas, or gas and air, for prolonged operations, will meet with general acceptance from anæsthetists who have given the method a trial. Not only may the patient suffer from asphyxial symptoms, but the operator is apt to be inconvenienced by the muscular spasms and incomplete relaxation. Whilst we are prepared to admit that gas and oxygen is one of the safest and easiest methods of anæsthetization, we have found that for general work the apparatus is too cumbrous and the expense too high. The technique of rectal etherization, and of the administration of ether and oxygen, are clearly described, and well merit more attention than has been paid to them up to the present time. We welcome, too,

the chapter devoted to local anæsthesia by cocaine, and by the diluted mixtures of Schleich and others. There are a few clerical errors in the book; *e.g.*, "painful" on page 282, line 8, should read "painless." Mr. Dudley Buxton's book may be cordially recommended, both as a text-book and a work of reference upon anæsthetics.

An Epitome of the History of Medicine. By ROSWELL PARK, M.D. Second Edition. Pp. xiv., 370. Philadelphia: The F. A. Davis Company. 1899.—In a notice of the former edition of this work we expressed the indebtedness of the profession to Dr. Roswell Park for the useful and compendious History of Medicine which he had published. The necessity for a second edition within a year shows how general the appreciation of his work has been. Some inaccuracies which appeared in the previous edition have been corrected—one which was pointed out in our review has been substantially, though not completely, rectified. The book has been enlarged by an additional chapter, on what the author calls iatrotheurgic symbolism, in which he displays a tendency to discover a phallic import in things symbolical. In this supplement he strangely misnames the celebrated leader of the Argonauts. We would again commend this excellent treatise.

How Surgery became a Profession in London. By D'ARCY POWER. Pp. 55. London: The Medical Magazine Association. 1899.—In these pages, reprinted from a series of articles in the *Medical Magazine*, we can trace the development of the modern surgeon from the two early types of "the military surgeon and his peaceful—though often brawling—brother the barber-surgeon" of the middle ages. It forms an interesting chapter of medical history, which may be read with pleasure and profit by those who are interested in the origin of the surgical craft.

Lord Lister and Surgery. By ROBERT TURNER, M.D. Pp. 28. London: Henry J. Glaisher. 1899.—It is well that we should be reminded from time to time of the great work done by Lister, which is liable to be forgotten amid the constant introduction of new details of wound-treatment, and this pamphlet deals in an easy and elementary fashion with the revolution introduced by that great master and reminds us of our indebtedness to him.

Ludwig and Modern Physiology. By J. BURDON-SANDERSON. Pp. 365–379. Washington: Government Printing Office. 1898.—This pamphlet, from the Smithsonian Report for 1896, is divided into three portions: (1) an introduction, (2) Ludwig

as investigator and teacher, and (3) the old and the new vitalism. The first part deals with the methods and scope of physiological enquiry, and touches on the relation between adaptation and the struggle for existence, and the birth of modern physiology under the parentage of Ludwig. The second is an eloquent appreciation of the great and many-sided physiologist, whose long life was devoted to a successful attempt to place the study of function on a truly scientific basis. The third and concluding part of the pamphlet is a somewhat controversial consideration of the different schools of vitalists and non-vitalists, amongst the former of whom Professor Burdon-Sanderson ranges himself and Ludwig. The subject is treated in that careful and thoughtful manner so characteristic of the author, and is, moreover, a most interesting character sketch of Professor Ludwig.

Recent Advances in Science, and their bearing on Medicine and Surgery. By MICHAEL FOSTER. Pp. 339–364. Washington: Government Printing Office. 1898.—This pamphlet from the Smithsonian Report for 1896 is a reprint, from *Nature*, of the first Huxley lecture delivered at Charing Cross Medical School. It contains a fine account of the state of sciences cognate to medicine at the time when Huxley was a student, and of the great steps forward in physiology which have been made since then. The lecture abounds in pregnant thoughts—for instance: "Each case of illness is to the doctor in charge a scientific problem, to be solved by scientific methods." "The value of a discovery is to be measured not only by its immediate application, theoretical and practical, but also by the worth of the idea it embodies and to which it gives life." "An attitude of mind once gained is a possession for ever, far more precious than facts which are gathered in with toil and flee away with ease." It is a worthy "preface," as Professor Foster calls it, to the Huxley lectures.

Recent Progress in Physiology. By MICHAEL FOSTER. Pp. 437–452. Washington: Government Printing Office. 1898.—Rather late in the day we have received the reprint of the President's address to the physiological section of the British Association for the Advancement of Science, delivered at Toronto in 1897. The period considered comprises the years which separate 1884 and 1897, or the two meetings of the Association in Canada. The Professor deplores the strong "commercial" element which is appearing in even so uncommercial a science as physiology; but finds comfort in three marked features of progress. The first is the *new* physiological chemistry, which seems to him to have most happily combined the two sciences, physiology and chemistry,—the one not trying to produce a chemistry of physiology, nor the other a physiology of chemistry. The second feature is the increasing attention given to the study of the lower

forms of life, whereby we make it the scaffolding on which to build the more complicated explanations of vertebrate life. The third advance is in the line of what we call "internal secretion." The address ends with a tribute to the magnificent work of Golgi, and his method of studying the central nervous system, in which it is carefully pointed out that Golgi, in introducing the *technique*, at the same time pointed out the theoretical significance of the result produced by the method, with which are coupled the names of Ramon y Cajal and Kölliker. The address is worth reading, if only for noticing the masterly style of the author.

A Pocket Medical Dictionary. By GEORGE M. GOULD, M.D. Fourth Edition. Pp. 9—837. London: H. K. Lewis. 1900.—Although we have been for many years well acquainted with Dr. Gould's invaluable lexicographical work, this *multum in parvo*, already in its fourth edition, comes to us as a novelty. It is printed on such appropriate paper, that, notwithstanding the many pages, its description as a "pocket" volume is quite justified. Its tables of bacteria, muscles, nerves, *râles*, and eponymic terms give it a special claim upon our attention, and when we state that it provides not only such a simple definition as "blind, without sight," but also tells us what meta-amidophenylparamethoxyquinolin is, it will be seen that its range is large. Dr. Gould informs us that "old" is "advanced in life"; but he has not ventured on a definition of "young," although we learn that a "maid" is "a young unmarried woman." This dictionary allows us to use "chemical" as an alternative to "chemic," which is evidently Dr. Gould's favourite; but his conservatism does not permit "surgic" instead of "surgical." If we did not feel sure that "continueter" for "let it be continued" is a misprint, we should begin to think that Dr. Gould was going to lay his reforming hand on the Latin as well as the English tongue.

The Processes of Life Revealed by the Microscope: a Plea for Physiological Histology. By SIMON HENRY GAGE. Pp. 381—396. Washington: Government Printing Office. 1898.—This pamphlet, the address of the president of the American Microscopical Society, reprinted from the Smithsonian Report, is a sketch of the life-history of cells as revealed by modern research, and of the changes in cells which accompany their various activities, such as rest and movement, secretion, and so on. It is a plea for the study of cellular structures from a physiological, as distinguished from a morphological, point of view.

Some Aspects of the Mental Discipline Associated with the Study of Medicine. By C. O. HAWTHORNE, M.B. Pp. 48. London: J. & A. Churchill. 1899.—This thoughtful address, delivered to a body of ladies belonging to the Queen Margaret College Medical Club, may be perused with profit by all engaged

in the practice of medicine. As the title implies, it deals with the habit of mind produced by the investigation of disease, and the unconscious mental training which is thereby received. The author shows in a very interesting manner the education in the appreciation of evidence or testimony which the examination of patients gives: he quite rightly points out that success in treatment largely depends on the power which the doctor acquires of sifting the evidence presented to him, of acting upon what is essential, and rejecting the irrelevant. Further, a medical man who has learnt his lesson knows that he should not express an opinion without having duly considered the evidence. The author gives credit to the medical world for intellectual candour and freedom from prejudice: he thinks that the practice of medicine, far from blunting, stimulates the imagination, whilst at the same time it makes a man value accuracy of statement. On these and other grounds he contends that the discipline of medicine is in itself a broad and liberal education.

Golden Rules of Medical Practice. By ARTHUR HENRY EVANS, M.D. Pp. 71. Bristol: John Wright & Co. [1899.]—No exception can be taken to most of the condensed aphorisms herein contained. To those who already know more, it is possible that the little book in the pocket might sometimes serve as a useful reminder of what should be in the head; but to those who do not know, a concentrated essence of this kind must be comparatively as useless as the "ox in the teacup." The size of the book is such that if not in the pocket, it is not likely to be found elsewhere.

Lectures on Clinical Medicine: delivered in the Glasgow Royal Infirmary. By JOHN LINDSAY STEVEN, M.D. Pp. viii., 195. Glasgow: Alex. Macdougall. 1900.—Clinical lectures on rare cases, such as Landry's paralysis, scleroderma with hemiatrophy, and osteo-arthropathy, are always of interest, inasmuch as by this teaching of the lecturer, he becomes instructive to the reader or the listener. Such selections from the case-book of a physician, become worthy of the attention of a wider circle than the usual class-room of a hospital, where it has now become the fashion to decry clinical lectures in favour of more desultory work in the wards. The author has given us a well printed and well illustrated volume, easy to read, and instructive on every page.

Tuberculosis: its Nature, Prevention, and Treatment, with special reference to the Open Air Treatment of Phthisis. By ALFRED HILLIER, M.D. Pp. xii., 243. London: Cassell and Company, Limited. 1900.—The author believes "that a concise manual, dealing with all the hydra heads of Tuberculosis in one volume, will form a work of reference of some interest and value to practitioners of medicine and

medical students." It is for them that this work is primarily intended. One of the most important points in the whole book relates to the control of the sputum (p. 127). "The absolute control of the sputum of the consumptive must be gradually insisted on, and the use of the pocket spittoon, and other precautionary measures, become a routine practice with a phthisical patient, whether he be in a sanatorium, a lodging-house, a private dwelling, or anywhere else." The author does not appear to encourage the practice of burning the sputum direct with the paper spitting-cup; the practice of collecting the sputum in carbolic acid is inferior to the burning method. The following paragraph summarises the greater portion of the book, and therefore all the modern views on phthisis: "It will be tolerably clear, from what has already been written, that consumptives of both sexes, and all classes, should recognise that they are called upon to entirely adapt their lives, for the sake of themselves, their families, and their neighbours, to the requirements of their disease. . . . It is highly desirable that the open-air treatment should be adopted. The best introduction to this which a patient can possibly have is a residence of some months in a sanatorium conducted on open-air principles, and it is to be hoped that ere long these will be available for every class of the community. The benefit derived from a stay in such an establishment is not merely the improved health of the patient; it is largely the education, which teaches him that some of the measures and precautions most desirable for his own welfare are also an essential part of his duty to his neighbour." We appear as yet to be only on the threshold of the sanatorium question.

Consumption: its Nature and Treatment. By WILLIAM H. SPENCER, M.D. Pp. 83. London: Henry J. Glaisher. 1900.—"This is no compilation. What I tell of, that have I seen; what I teach, that has experience taught me." The book is based upon lectures to Bristol students, but of a previous generation, inasmuch as two Professors of Medicine have followed the author since his resignation: it is now intended to instruct the intelligent and educated public. This is done "in choice and scholarly, albeit somewhat old-fashioned diction." (*The British Physician*, April 16th, 1900, p. 275.) The author's method of treatment, by what he calls the "Diffusion" method, depends mainly on medicated inhalations by means of the Arema vaporiser. This is diametrically in antagonism to the more modern and popular views on open-air treatment: the two are absolutely incompatible with each other. Both have advocates; time alone can decide which is the more efficient.

Norârach at Home; or, Hygienic Treatment of Consumption Adapted to English Home Life. By Jos. J. S. LUCAS. Pp. 60. Bristol: J. W. Arrowsmith. [N.D.]—This useful little book

shows what those patients who are not able to leave home can do for themselves there. The author does not think that hygienic treatment can be so well carried out in private houses, away from the personal influence and discipline of the director; still, in many cases much may be done by means of a few simple directions such as he gives. It is generally admitted that the system of treatment is far and away more important than the climate. Food, fresh air, and rest are the chief agencies required.

The Schott Methods of the Treatment of Chronic Diseases of the Heart. By W. Bezly Thorne, M.D. Third Edition. Pp. 132. London: J. & A. Churchill. 1899.—The third edition of this book contains a few additional cases, some of which are interesting and of the nature one would expect to obtain benefit from the Nauheim treatment. There are people past middle life who experience pain and cardiac distress started by over-exertion. Possibly the circulatory disturbance in such cases is not due simply to cardiac weakness. The vaso-motor system may be largely at fault. The tepid baths and carefully regulated exercises restore the normal balance.

The Murmurs of Mitral Disease. By Edward Mansfield Brockbank, M.D. Pp. viii., 47. Edinburgh: Young J. Pentland. 1899.—Dr. Brockbank argues in support of the theory that the so-called presystolic murmur of mitral stenosis is not presystolic but systolic. It must be confessed that a strong case is made out in favour of the systolic theory. Perhaps one of the strongest points advanced is in connection with the crescendo character of the murmur. Dr. Brockbank explains the rise of pitch and the short first sound which frequently follows the end of the murmur by the ventricular systole driving blood through the narrowed and stiffened orifice, the edges of which are approaching under pressure and ultimately come into sharp contact. Although we consider that Dr. Brockbank states his case in an able manner, we do not think he has proved his contention.

Notes on Malaria in Connection with Meteorological Conditions at Sierra Leone. By Major E. M. Wilson. Third Year. Pp. 15. London: H. K. Lewis. 1899.—We have on a previous occasion reviewed Major Wilson's pamphlets on malaria and expressed our favourable opinion of the views held. This year's copy contains some new notes on 1898. There is no direct reference to the most recent work on mosquitoes and malaria.

Pye's Surgical Handicraft. Fourth Edition. Revised and edited by Bertram M. H. Rogers, M.D. Pp. xvi., 550. Bristol: John Wright & Co. 1900.—We are glad to see another

edition of this useful little book, of deserving popularity amongst house-surgeons. Our first impressions were favourable. The volume is no larger than it was fifteen years ago, yet most modern processes and apparatus have been introduced, including a chapter on skiagraphy. The book has many points to recommend it, but on careful perusal we much regret to find many antiquated or erroneous teachings. Particularly is this so in dealing with that important subject, hemorrhage. Severe hemorrhage from vessels of all kinds is to be treated by plugging (p. 3); severe bleeding from an aneurysm of the femoral requires first a tourniquet, and then plugging and pressure (p. 45); secondary hemorrhage is generally arrested by plugging and compression (p. 47). We should be sorry for any house-surgeon who made such blunders. Davy's dangerous lever (p. 13), puncture of the bladder *per rectum* (p. 445), and triangular bandages should, in our opinion, have been left out. The treatment of cut throat is not up to date. Hallex (p. 311) should read hallux.

Aseptic Surgery. By CHARLES BARRETT LOCKWOOD. Second Edition. Pp. xiv., 264. Edinburgh: Young J. Pentland. 1899. —The present edition of this useful little book contains "no alterations of any moment" from the first edition, which we have previously reviewed. The author still uses the same methods of obtaining asepsis as before. He regards the biniodide of mercury as the most efficient antiseptic, and claims that with it he has had better results in the disinfection of the skin and that wounds have done better. We are pleased to say that this accords with our own experience, and can heartily commend the book to students and practitioners. "Binioeide" appears in the headline of p. 143.

The Student's Handbook of the Surgery of the Alimentary Canal. By A. ERNEST MAYLARD, M.B., B.S. Pp. xv., 510. London: J. & A. Churchill. 1900.—The present work is an abridged and amended edition of the author's treatise on the same subject, which we have previously reviewed. The abridgment has been mainly effected by the elimination of the detailed reports of cases which appeared in the larger volume, and this we regard as an improvement. The author has done his work well, and the book contains all that was worth knowing in the previous edition without its needless encumbrances.

Intestinal Obstruction. By FREDERICK TREVES. and New Revised Edition. Pp. xi., 565. London: Cassell and Company, Limited. 1899.—The first edition of this work, published in 1884, filled a distinct want in the literature of intestinal surgery. The present issue further embodies the extensive additions which have been made to our knowledge of the subject during the past fifteen years. Intestinal

obstruction is one of the bugbears of abdominal surgery, and the operation-mortality of such cases has made many surgeons act as if the best thing to do is to avoid any surgical interference as long as possible. Mr. Treves's forcible teaching is just the reverse of this. In clearly expressed sentences he points out that in acute intestinal obstruction, abdominal taxis, puncture of the intestines, and other methods of treatment are for the most part feeble excuses for delay and for avoiding operation in which the mortality increases the longer it is delayed. There is a multiplicity of causes and varieties of causes of intestinal obstruction which render the subject difficult to handle; but it has been dealt with by a master hand, and the book must take foremost rank in its branch of abdominal surgery. The book is divided into three parts—pathology and morbid anatomy, clinical manifestations, and treatment. Half of the work is taken up with the pathology and morbid anatomy, which might with advantage have been curtailed. We think it would have been better to deal with acute obstruction as a whole first, and subsequently to take up chronic obstruction. That there are difficulties in arrangement we have already admitted; but in reading the book the impression is given that the morbid anatomy, clinical symptoms, and treatment of any form of intestinal obstruction are unnecessarily dissociated. We heartily commend this work, which is destined to become classical.

Diseases of the Gall-Bladder and Bile-Ducts, including Gall-stones. By A. W. MAYO ROBSON, Assisted by FARQUHAR MACRAE, M.B. Second Edition. Pp. 313. London: Baillière, Tindall and Cox. 1900.—The arrangement of the present is an improvement on that of the former edition, in which the Hunterian lectures for 1897 remained in their original form. An index, too, has been added, which is essential for reference. It is doubtful whether the inclusion of the tables should be continued in the next edition; a summary of the results (which have not been excelled by anyone) would be sufficient. We know of no better work on the subject, and the author's wide experience and successful results have brought the surgery of this region to a high level of excellence.

Contributions of Original Articles to Orthopedic Surgery. By JAMES W. COKENOWER, M.D. Pp. 32. Des Moines: Conaway & Shaw. 1898.—The commonplaces of this branch of surgery are to be found in this series of isolated papers. Though they may have had the interest of locality for the societies before which they were read, there seems no other reason for collecting them into a pamphlet. The author has nothing very new to say, and his ground is mostly safe from controversy. On the subject of osteoclasis, however, he rather leaves this safe position; but his chief advocacy of it, as opposed to osteotomy, seems to be

on the score of its freedom from sepsis. Perhaps it is unnecessary to add that Dr. Cokenower has his own modification of the Grattan osteoclast.

A Manual of Gynæcological Practice. By Dr. A. DÜHRSSEN. Second English Edition, translated and edited from the Sixth German Edition by JOHN W. TAYLOR and FREDERICK EDGE, M.D. Pp. xlii., 279. London: H. K. Lewis. 1900.—We have previously reviewed the first edition of this work. The present edition contains such alterations as became necessary by the lapse of time. The teachings of its pages are thoroughly sound, but the subject is too briefly treated. The illustrations as a whole are poor.

Notes of Fifty Consecutive Cases of Cœliotomy for Diseases of the Uterus and Appendages, with Forty-eight Recoveries, performed within the last twenty months, with observations. By JAMES MACPHERSON LAWRIE, M.D. Pp. 56. London: John Bale, Sons & Danielsson, Ltd. 1899.—Nearly half the cases here recorded consisted of removal of the appendages—an operation of low mortality. Of the four abdominal hysterectomies for uterine fibroid one died. The book consists almost entirely of an enumeration of cases in which the details given are frequently too brief to allow of comment.

Gynæcological Nursing. By G. A. HAWKINS-AMBLER. Pp. viii., 96. London: The Scientific Press, Limited. 1900.—This is a sound little book, and should be found useful by the nurses for whom it is written. We should like to have seen some reference to the administration of enemata by means of a tube and funnel.

Aids to the Diagnosis and Treatment of Diseases of Children (Medical). By JOHN MCCAW, M.D. Second Edition. Pp. 241. London: Baillière, Tindall & Cox. 1899.—The call for a second edition of this work has enabled the author to include a few omissions of his first issue, and we think by this the book has been increased in value. Students will find Dr. McCaw's "Aids" of use in getting a general outline of children's diseases, but for greater detail recourse must be made to some of the larger works on this subject. We have yet to learn what degree of eminence warrants an author being quoted without a prefix of Dr. or Mr. There is a delightful irregularity in this work on this point, but we refrain from quoting names lest those without the prefix should be puffed up with pride thereby.

De la Tracheo-Thyrotomie dans le Cancer du Larynx. Par le Dr. E. J. MOURE. Pp. 20. Bordeaux: Feret et Fils. 1898.—Dr. Moure here records four cases of thyrotomy for cancer of

the larynx, and speaks highly of the results of this operation. He gives some good directions for the carrying out of the operation, which has been so successful in his hands.

The Hygiene of the Mouth. By R. DENISON PEDLEY. Pp. 93. London: J. P. Segg & Co. [N.D.]—This is a well-written treatise, with several good and serviceable illustrations. The author has simplified his work by arranging it all under two chapters: The Hygiene of the Mouth in Children; and The Hygiene of the Mouth in Adults. The chemical theory of caries of the teeth is here well emphasised. Yet it must be borne in mind that teeth of faulty structure are more readily attacked than those that are well and properly developed. As regards caries, the only cure is its early removal from the teeth; the cavity thus made should be filled with gold or other filling material. This, of course, means periodical visits to the dental surgeon; because if a patient waits for pain in a tooth before giving attention to it, the caries will by that time have penetrated the pulp, and if this has happened the pulp must be either capped or killed, and the nerve canals and pulp cavity disinfected and filled. Children should be taught to use their teeth by biting crusts and hard food. To give a child soft food only is "as wise as he who would ride *always* in a carriage in order to develop his legs." Mr. Pedley also judiciously deplores the drinking of water at meals, and thereby failing to mix the food with saliva before swallowing. He points out that decayed teeth often originate other diseases. His remarks on the cleansing of the mouth are very important; although the rules he lays down are rather stringent, and it is doubtful whether the constant and vigorous use of the tooth-brush, powder, and tooth-pick is not liable to do more harm than good to teeth of faulty development. Of course, there are some teeth to which the author's rules would be very beneficial; but these are exceptional. The author refers to necrotic teeth, by which we understand him to mean teeth which have lost their pulps and nerves and the periosteal membrane; those which have lost their pulps and nerves only, and remaining tight, are called dead teeth. It is possible to save dead teeth by treatment, even if they are causing abscess; but if they are necrosed, that is, having lost their source of nourishment from outside as well as inside, they must be extracted. If persons would carry out Mr. Pedley's advice we believe those distressing pains so often endured would be very much lessened or altogether prevented.

Pyorrhœa Alveolaris. By JOHN FITZGERALD, L.D.S. Pp. 62. London: The Medical Publishing Company, Limited. [1899.]—This is a *résumé* of what is known on the subject—carefully collated no doubt, but only fairly well written. In the main the treatment advocated is practical, but there are suggestions which appear purely theoretical and which are scarcely to be

considered feasible or satisfactory. Take, for instance, replantation as a method of treatment.

Materia Medica and Therapeutics. By J. MITCHELL BRUCE, M.D. [Fifth Edition]. Pp. xii., 609. London: Cassell and Company, Limited. 1899.—It is superfluous to express an encomium upon Dr. Mitchell Bruce's well-known text-book. This edition has been revised, considerably enlarged, and in all ways brought up to date in respect both of the pharmaceutical and therapeutical sections. It is especially to be commended that the author does not confine himself strictly to those substances which are made official to the British Pharmacopœia, but includes also some other useful and important articles. We would most strenuously recommend this book to our students, and beg them to study it. The existing regulations of the Conjoint Board tend to encourage in students an ignorance of remedies and therapeutics which is simply deplorable.

The Newer Remedies. By VIRGIL COBLENTZ, Ph.D. Third Edition. Pp. 147. Philadelphia: P. Blakiston's Son & Co. 1899.—This book contains a great deal of information not to be found in the text-books. The author, as Professor of Chemistry in the New York College of Pharmacy, has vast opportunities for research, and his experience as a teacher enables him to present a list as complete as possible of many new drugs, on which it would be difficult otherwise to obtain any authentic information. It is a formidable list, including many proprietary drugs in daily use, as well as many other preparations which are not likely to be of much service.

Rough Notes on Remedies. By WM. MURRAY, M.D. Third Edition. Pp. x., 142. London: H. K. Lewis. 1899.—The additions to this issue are chapters on Specific Disease, Ptyalism in Jaundice, Turpentine Vapour in the Treatment of Pneumonia, and Liqueur Brandy. The author remarks that "what we most need is a close acquaintance with the virtues and potentialities of our remedies so that we may be ready to use them whenever a rare or unusual crisis presents itself." Liqueur brandy is doubtless a very efficient form of alcohol and ethers.

The Pocket Pharmacopœia. By FREDERICK HUDSON-COX and JOHN STOKES, M.D. Pp. 206. London: Baillière, Tindall and Cox. 1899.—Following the plan of the former edition of 1885, written by the late Dr. Armand Semple, the writers have endeavoured to make the book more generally useful as a medium for acquiring a knowledge of the materials and therapeutics of the British Pharmacopœia. By the elimination of about 150 pages of appendices and index, and by using very

small type, they have produced a pocket edition of 206 pages instead of the 535 of the Pharmacopœia. Readers of and above middle age will prefer the larger publication.

Le Mont-Dore et ses Eaux minérales. Par le Docteur EM. EMOND. Quatrième édition. Pp. 252. Paris: J.-B. Baillière et Fils. 1900.—This new edition of a well-known guide to the waters of Mont-Dore has somewhat grown, inasmuch as it contains the further results of a long-continued experience of twenty-five years' study and observation on the spot. The author directs especial attention to his views on phthisis, asthma, pharyngitis, laryngitis, and coryza.

Xeroform. Pp. 88. London: Burgoyne, Burbidges & Compy. [N.D.]—This *brochure* contains various papers setting forth the value of xeroform as an antiseptic. Xeroform or tribromophenol-bismuth is a fine yellow powder of neutral reaction, with a slight phenol-like odour, tasteless, and unaffected by light. It is said to be superior to iodoform in that it is non-poisonous, practically odourless, never causes eczema, is free from germs, has a powerful action upon bacteria and is sterilizable by simple heating.

Shaw's Manual of the Vaccination Law. By a Barrister-at-Law. Seventh Edition. Pp. xv., 256. London: Shaw & Sons. 1899.—Although the sixth edition of this work was issued immediately after the publication of the order of 1898, another edition has been required. It will be found of service to those charged with the carrying out of the Act, which came into operation January 1st, 1899. This Act, like most others, has imperfections and shortcomings, which will, it is to be hoped, receive attention at a future date. But there can be no doubt that the immediate result of carrying vaccination to the homes of children in England has considerably increased the number of those who have been submitted to this wholesome discipline during the past year.

Aids to the Analysis of Food and Drugs. By T. H. PEARMAIN and C. G. MOOR. Second Edition. Pp. 206. London: Baillière, Tindall & Cox. [1899].—In the production of this edition many of the more important sections, especially that on milk, have been re-written and extended with advantage; but as the processes formerly given for the assay of medicinal preparations are now omitted, reference being made simply to the methods of the new Pharmacopœia, the work is but slightly increased in bulk, and still correctly claims to be the handiest compendium of information relating to the analysis of foods.

Buxton: its History, Waters, Climate, Scenery, &c. Pp. 36. Manchester: Henry Blacklock & Co. Ltd. [N.D.]—This booklet

gives all needful information about a place whose attractions cannot fail to be recognised, without undue puffing. The book consists largely of advertisements, and is, of course, itself one.

Creuznach-Spa and its Environs. Pp. 62. Wiesbaden: Petmecky Brothers. 1899.—This little book, well written and well illustrated, not beset by advertisements, but constituting a good general and medical guide of the pretty health-resort of the valley of the middle Rhine, is quite a model of what a good guide book to a spa should be.

Eastbourne as a Health Resort. By CHARLES ROBERTS. Pp. 31. London: Bale, Sons & Danielsson, Ltd. 1899.—Book-making becomes easy when a magazine article is reprinted and issued in this form. We are told that Eastbourne differs from most of the towns on the south coast of England in having been laid out from the first as a health resort; and, further, that a stationary marine hospital would give all the supposed advantages to be derived from sea voyages. We are surprised to learn that "gastric complaints in old people do well in spite of, and possibly in consequence of, the hardness of the water"; whereas in other towns the hardness of the water is usually considered to be an objectionable feature. Doubtless we shall soon hear of a sanatorium for the systematic treatment of phthisis in this favoured spot.

The Natural Waters of Harrogate. By FRANCIS WILLIAM SMITH, M.D. Pp. 101. London: Dawbarn and Ward, Limited. 1899.—This book is dedicated to "the doctors of this country for the good of their patients and the glory of Harrogate." The waters are "chemically, therapeutically, and clinically considered, with reference to their application by drinking and bathing; by the light of fresh analysis, and by examination of the blood." The essence of the latter point is comprised in the following sentence: "When hæmoglobin is higher than corpuscles, it indicates a gouty and apoplectic tendency; when the reverse is the case, anæmia is indicated."

Golden Rules of Psychiatry. By JAS. SHAW, M.D. Pp. 74. Bristol: John Wright & Co. [1899.]—We recommend this little book to the general practitioner. Certain sections of it would prove useful even where no previous knowledge of mental disease existed; but presuming a certain acquaintanceship with this subject to be possessed by most medical men, the author has made his epitome cover a good range of clinical matter. The work is clearly and concisely written, and will, no doubt, fulfil a need; the section on examination and certification of an insane person is especially serviceable.

The Power of Nature in Disease. By J. WALLACE ANDERSON, M.D. Pp. 50. Edinburgh: William F. Clay. 1899.—Dr.

Anderson gives us a learned though inconclusive essay on the power of nature in healing disease. It is divided into two parts. The first is a sketch of the history of the doctrine from the time of Hippocrates downwards. The second part discusses the ways of nature in dealing with various diseases—*e.g.*, fever, hemorrhage. We may perhaps take the former subject as an instance of the thesis defended. The author alleges "that the state of fever generally is the expression or evidence of nature's endeavour to overcome and expel the disease." We must confess that we do not believe such a doctrine, which appears to us to imply that the tissues act with a purpose—an assumption which involves, at bottom, a foreseeing consciousness on the part of the cells of which our bodies are built up. Modern science is more inclined to represent fever as simply a reaction to influences, whether microbic or not, acting on the body, with no ulterior end in view. Whatever view one takes, however, this little book is well worth reading both as a record of the views of a long succession of our forefathers in the art of medicine, and as an ingenious defence of such tenets.

A Guide to the Examinations by the Conjoint Examining Board in England, and for the Diploma of Fellow of the Royal College of Surgeons of England. By FREDERICK JAMES GANT. Seventh Edition. Revised by WILLMOTT EVANS, M.D. Pp. 252. London: Baillière, Tindall and Cox. 1899.—A careful reading of this book shows that it is a useful digest of the rules and regulations of the Conjoint Board, together with the papers set at the examinations during the last eight years, with examples of the *viva voce* ordeals undergone by the candidates. This evidently has supplied a want, or else it would not have reached its seventh edition; it reminds us of the talk of a students' room, but it is free from the exaggeration of the disappointed and the slights of the successful.

Experimental Proofs of the Role of Alcohol. By E. MACDOWEL COSGRAVE, M.D. Pp. 39. Dublin: Fannin & Co. 1899.—"Alcohol is not a stimulant, it wears us out, but does not increase our work. *Short life, less work, worse work*—that is the output of alcohol. What does it give us in exchange? It offers to narcotise our minds as well as our bodies, to hide from us the truth about ourselves; to make us satisfied when we ought to be ashamed; and to substitute dreams for realities." This is Dr. Cosgrave's summary of his observations. We have heard it all before. His facts are not new, and we are unconvinced by his statements.

Schoolboys' Special Immorality. By MAURICE C. HIME, LL.D. Second Edition. Pp. 48. London: J. & A. Churchill. 1899.—The vice of masturbation is often, one may truly say generally, begun in ignorance during the earlier years of boyhood, under

the influence of some physical defect or from bad example, but no schoolmaster can be held guiltless of culpable negligence if he ignores the all too frequent existence of the habit and takes no precautions against it. Because it is always a disagreeable matter to approach, a false sense of delicacy has led many kindly and even thoughtful masters—and we must add parents—to withhold the timely warning and admonition that would in most cases check this unnatural nastiness. We therefore cordially welcome this small *brochure*, which offers discreet and much-needed advice to both parents and schoolmasters in clean, straightforward, and acceptable language.

The Medical Annual. Bristol: John Wright & Co. 1900.—This most popular work has reached its eighteenth year of publication, and fully maintains its useful character. It gives, in a condensed form, a large amount of information, partly obtained from current literature and partly in the form of original articles by well-known writers, thus presenting the reader with a good summary of modern advances in medical knowledge. One of the most valuable articles is by Major Ronald Ross, giving an account of his brilliant discoveries respecting the nature and prevention of malarial fever, and giving also, in a simple form, a good outline of the work of others on this important subject. Professor Loomis of New York writes on the subject of phthisis, devoting attention chiefly to treatment. He remarks that one point in treatment which is steadily gaining ground is that the destruction of the bacilli and the neutralisation of their products, so far unsuccessfully attempted from the outside by germicides and antitoxins, may be accomplished from within by the living tissues. Hygienic treatment consists in strengthening the organism to effect its own cure. Mr. Hurry Fenwick writes on "Disorders of the Prostate Gland," and naturally devotes attention to Bottini's operation, which has so much come into vogue of late. No less than forty-eight pages are devoted to "Diseases of the Stomach," Dr. Boardman Reed of Philadelphia writing on the medical aspects and Mr. Walter G. Spencer on the surgical. Both of these writers have done their work with much ability. Among local contributors, Mr. F. Richardson Cross writes on "Ophthalmology" and Dr. P. Watson Williams on "Differential Diagnosis of Nasal Accessory Sinusitis." The volume should undoubtedly find a place in the library of every practitioner.

Transactions of the Clinical Society of London. Vol. XXXII. London: Longmans, Green, & Co. 1899.—In this volume we have the usual varied and interesting cases with which these transactions always abound, bearing witness to the large store of clinical material brought before the society, and to the indefatigable energy of its members. There are numerous well-executed skiagrams, coloured and other plates illustrative of the text.

Transactions of the Royal Academy of Medicine in Ireland. Vol. XVII. Dublin: Fannin and Co. 1899.—This volume contains the usual reports and lists of officers, members, and fellows. There are sixteen papers in the section of medicine, eleven in surgery, seven in obstetrics, twenty-two in pathology, seven in state medicine, and three in anatomy and physiology. It would be invidious to select one or more papers when all are of a high standard and express the views of the heads of the profession in Ireland. An excellent series of plates shows the œdema and muscular atrophy resulting from beri-beri.

Transactions of the Iowa State Medical Society. Vol. XVII. Waterloo, Iowa: H. G. Middleditch. 1899.—This is the report of the transactions of the forty-eighth annual congress of the society. The papers and the discussions on them are all interesting reading, perhaps one of the best being the paper and discussion on the "Serum Treatment of Diphtheria." Again we notice the proof-reading wants improving, for we came across such words as "ager," "asexnalization," and "tempature."

Transactions of the Michigan State Medical Society for the Year 1899. Vol. XXIII. Grand Rapids: Published by the Society. 1899.—To judge from the papers and discussions in this volume, very good work is done by the Michigan State Medical Society at its Annual Meeting. Amongst the papers we would draw attention to especially are, one by F. W. Robbins, on "Urethral Disease and Marriage," and the one entitled "Why Some Severe Cases of Appendicitis Recover Without Operation," by J. W. Carstens. The discussions on the papers are apparently reported verbatim, which we are inclined to think is a mistake. A condensed account of the remarks would add very much to the dignity of the reports of the proceedings.

Transactions of the Medical Society of the State of New York. Published by the Society. 1899.—The great variety of matters considered in this volume makes it impossible, without running to a length we cannot afford, to adequately review this contribution to modern medicine. Of the forty-nine articles many will repay careful consideration, for they are the products of the minds of some of the leading practitioners of the State of New York. It seems a pity that so much good work should not have a larger circulation in this country.

Transactions of the Ohio State Medical Society. Cleveland: Press of J. B. Savage. 1899.—During its fifty-fourth meeting the society appears to have got through no inconsiderable amount of work, and had good discussions on some of the papers. We suggest to the publication committee to head the

pages with the titles of the articles, as readers find it more convenient.

Transactions of the College of Physicians of Philadelphia. Third Series. Vol. XX. Philadelphia: Printed for the College. 1898.—Some miscellaneous papers of the usual excellent type are to be found in this volume. Dr. Deaver pleads for prompt interference with cases of typhoid perforation: he states that "the occurrence of sudden acute abdominal pain, with very decided abdominal rigidity and tenderness, with or without collapse, is in a typhoid-fever patient the strongest possible indication for immediate abdominal section. To wait after the advent of these symptoms for further corroborative evidence of perforation is fatal." Drs. H. A. Hare and C. A. Holder give an interesting estimate of the Brand bath in typhoid fever, and ask the question whether the routine use of the bath is wise, answering it by saying that "a rigid routine is unadvisable." Dr. Arthur V. Meigs gives reasons why the Philadelphia Board of Health practice of placarding houses in which are persons suffering with scarlet fever and other contagious diseases should not be continued. The method of placarding does not appear to have been of much service, and in various ways has been productive of harm. A paper on the abuse of ergot in the treatment of hemorrhage gives the views of Dr. Frederick A. Packard, as follows: "In treating medical hemorrhage our object should be to endeavor to favor the formation of a clot in the ruptured vessel by measures that increase the coagulability of the blood, by calcium chloride, or, where possible, by local applications (such as the topical use of such remedies as hamamelis in epistaxis, the gentle inhalation of turpentine or other hæmostatic vapor in hæmoptysis, the administration of tannic acid in hæmatemesis, of acetate of lead in hemorrhage from the bowel), to prevent mechanical disturbance of the clot by producing local rest (opium to check cough and to stop peristalsis), and to use our best efforts to lessen blood-pressure (as by restriction of fluid ingestion, by the use of saline laxatives when permissible, by the hot foot-bath, by ligature of the extremities, by veratrum viride, nitroglycerin, or venesection in various classes of cases), but, above all, to avoid any cause for increase in blood-tension, and especially to abstain from the use of ergot, which is, above all other drugs, the most active in lessening the capacity of the arterial tree." This appears to us to be a very terse and excellent summary of what to do and what to avoid in the treatment of hemorrhage.

Transactions of the Grant College Medical Society, Bombay, 1898. Bombay: "Tattva-Vivechaka" Press. 1899.—The President has the candour to admit that the members of the society did not take interest in it, and that there had been no

substantial work done during the past year; nevertheless this number contains much interesting and useful information on the utility of Haffkine's inoculations as prophylactic against the plague.

Transactions of the Dermatological Society of Great Britain and Ireland. Vol. IV. London: H. K. Lewis. 1898.—No doubt there are reasons, and perhaps good and only temporary ones, for the smallness of this volume; but it is not a healthy sign. The clinical work brought forward is, however, upon the whole good. Dr. P. Abraham has two good plates of xanthoma diabeticorum; Dr. A. Eddowes, a plate of ringworm contracted from a pet hedgehog; Mr. W. Anderson illustrates a case of an obscure form of erythema induratum; and Dr. Savill gives the details of a very exceptional skin manifestation, probably caused by angeio-neurotic disturbance, and which is interestingly demonstrated by picture-drawings of the complaint on the left wrist and hand.

Transactions of the American Laryngological Association. New York: D. Appleton and Company. 1900.—The work of this very representative gathering of American specialists is as valuable as any of its predecessors. To the general physician the series of four original contributions on the relation of pathological conditions of the ethmoid region to asthma will be especially interesting, although we cannot believe that the nose is quite so important a causal factor of asthma as some of the writers in this volume do.

Transactions of the American Association of Obstetricians and Gynecologists. Vols. IX., X., XI. Philadelphia: Wm. J. Dornan. 1896-8.—There is much in these volumes which will interest the abdominal surgeon as well as the gynæcologist, and the contributors are amongst the foremost of American practitioners. Nearly every subject of gynæcological interest is discussed, and discussed ably, in these volumes, which have several very good full-page plates. Volume X. contains a memorial article on Mr. Greig Smith, "edited" by Dr. L. S. McMurtry, from the *Bristol Medico-Chirurgical Journal*, and illustrated by an excellent portrait of our late distinguished colleague.

Transactions of the American Ophthalmological Society. Vol. VIII. Part 2. Hartford: Published by the Society. 1898.—The report of the committee on ophthalmia neonatorum deserves special mention. It states that of about 50,000 blind persons in the United States more than 5,000 are blind from ophthalmia neonatorum; and that if the 2 per cent. nitrate of silver method was universally adopted (as advocated by Credé) the number of blind from this cause might in a single generation be reduced to

350 cases, or even less. The relative frequency of blindness in rural districts is entirely due to the neglect of this or some other similar precaution. Following the lead of the Ophthalmological Society of the United Kingdom, the American Society passed a resolution advocating the adoption of the Credé method, and urging its compulsory use in almshouses and lying-in institutions. Nearly one quarter of the volume is devoted to records of growths in or near the eye. Dr. E. Gruening relates a case of lipoma of the orbit. Probably this is the only undisputed case on record. Three cases of buphthalmia (hydrophthalmia) occurring in three sisters are reported by Dr. W. B. Johnson. In the youngest the disease was arrested by iridectomy. There are several other important articles, and amongst them is one by Dr. James Minor, bearing the somewhat sensational title, "Learning to See at Forty." The volume contains some excellent illustrations, chiefly from photographs, and some capital drawings from microscopic specimens.

Transactions of the American Pediatric Society. Vol. XI. 1899.—The present volume opens with Dr. W. P. Northrup's presidential address on "Methods of Instruction in Pediatrics." The address, with the discussion which followed, is of interest, as embodying the ideas of the leading American authorities on the subject, and also showing what a high position the teaching of pediatrics holds in the curriculum of the American medical student. Dr. Henry Koplik, in a paper on "Pulmonary Hemorrhage following Exploratory Puncture of the Chest for Fluid in Infants and Children," utters a word of warning against the indiscriminate use of the exploratory needle merely for purposes of more exact diagnosis. We feel that the warning, coming from one who has had such great clinical experience, may profitably be borne in mind, during the present wave of bacteriological enthusiasm. Dr. R. G. Freeman's preliminary observations "On the Separation of Bacteria from Milk by Natural Process" are of far-reaching importance, as they may be a very decided step in the direction of providing infants with raw milk free of germs. The remaining papers of the volume fully sustain the reputation of the Society, and we can recommend Dr. J. D. M. Miller's paper on "Acute Articular Rheumatism in Infants Under One Year," and Dr. Emmett Holt's on "The Importance of Prolonged Rest in Bed after Acute Cardiac Inflammations in Children," as worthy of careful perusal.

Transactions of the American Surgical Association. Vol. XVII. Philadelphia: William J. Dornan. 1899.—The treatment of appendicitis seems still to form the favourite topic of discussion among American surgeons. Three papers are found in the present volume dealing with this subject from different points of view, and all tending to show the thoroughness with which it has been studied on the other side of

the Atlantic. A valuable paper on "Some Conditions of Healing by First Intention, with Special Reference to Disinfection of Hands," is contributed by Dr. Theodore Kocher, of Berne, and many other papers of great surgical interest make up a volume fully equal to its predecessors.

Guy's Hospital Reports. Vol. LIII. London: J. & A. Churchill. 1898.—The volume opens with a charming article entitled "Notes on Diagnosis" by Dr. Pye-Smith, who has lately bidden adieu to active work at Guy's, and who writes with all that scholarly grace for which he is noted. Dr. B. A. Richmond and Dr. Alfred Slater contribute an important practical paper on "The Ætiological Significance of the Diphtheria Bacillus and its Variants," in which they claim to demonstrate that neither (1) the morphological character, nor (2) the virulence, nor (3) the toxin-forming power of a diphtheria bacillus, bears any constant relation to the clinical nature of the case from which it has been isolated; and that all diphtheria-like bacilli (including the pseudo or Hofmann organism) are really only varieties of the same species, because even the non-virulent forms can by appropriate treatment be converted into actively pathogenic and typical Klebs-Löffler bacilli. It is evident that the whole subject of the relations between diphtheria and the different varieties of bacilli needs much further investigation. Other interesting articles in this volume are furnished by Dr. Brice Poole on "An Account of some Cases occurring in the Maidstone Typhoid Fever Epidemic," and by Mr. Hastings Gilford on "The Surgical Treatment of (Unperforated) Gastric Ulcer, with an Account of Three Cases in which Operations were Performed."

King's College Hospital Reports. Vol. V. London: Adlard and Son. 1899.—This volume is very similar to those which have preceded it. The list of subscribers is extending, and the editors are well satisfied with the reception which has been given to the previous volumes. Part IV. of Dr. Curnow's historical sketch reminds the reviewer that of the staff of thirty years ago, the times of Fergusson and Partridge, very few are now surviving.

The Middlesex Hospital. Reports of the Medical, Surgical, and Pathological Registrars for the Year 1897. London: H. K. Lewis. 1898.—Accuracy and detail characterise these reports, which record, as usual, a large number of surgical renal cases. We note special tables and abstracts of cases of hernia, appendicitis, renal affections, diphtheria, enteric fever, and of surgical gynæcology, besides a complete resumé of pathological observations. The volume comprises nearly 400 pages, representing a vast amount of work by the registrars which can be emulated by many but imitated by few. We observe that twelve out of forty-nine renal operations are returned as "negative

exploration of kidney,"—a rather large proportion in view of modern improvements in diagnostic measures, particularly considering that eight out of the twelve patients were females.

Saint Bartholomew's Hospital Reports. Vol. XXXIV. London: Smith, Elder, & Co. 1899.—Numerous papers of much interest and value are contained in this volume, and to all old Barts' men the reports will always have a very special interest, and will carry them back to days when they studied cases, not in its pages, but by the bedside of the patient. But many of the papers are of so much value, that the volume should be read by all interested in the progress of medical and surgical science. The first contribution to this volume is an exceedingly interesting case by Sir Thomas Smith—an abdominal cyst from which, after tapping, all food taken by the mouth, and all bile secreted, escaped. It was cured by pressure. Mr. Butlin's paper on the results of operations for cancer of the breast has been already referred to in the "Report on Surgery" in the June, 1899, number of this *Journal*. Mr. Butlin contributes another interesting paper, giving an account of his experiences of appendicitis at the hospital. We are glad to see his admission of the difficulty which often exists in the early stage of an acute attack in deciding as to whether there is general infection of the peritoneum. Dr. Walsham's paper on the X-rays in diseases of the chest will be of interest to physicians, but we must say we should be sorry to have to make the diagnosis from the reproductions of the skiagrams. The diagnosis of the complications of middle-ear disease is carefully considered in a paper by Dr. Armstrong Bowes. Mr. Marsh's contribution on "Points of Interest in Connection with Various Forms of Abscess" is of much practical value, and Mr. Walsham's experiences in operative surgery constitute a valuable record.

Saint Bartholomew's Hospital Reports. Vol. XXXV. London: Smith, Elder, & Co. 1900.—This volume of Saint Bartholomew's Hospital Reports contains much matter of practical utility. It is not often that obituary notices of two members of the staff have to be included in one volume, but such unfortunately is the case this year. The hospital sustained a great loss in the appointment of Dr. Kanthack, the pathologist and lecturer on pathology to the hospital, to the post of Professor of Pathology at Cambridge, and the Science of Medicine a yet greater loss by his early death. His connection with Saint Bartholomew's, and his enthusiasm for his work there, are described in a most interesting "In Memoriam" paper. Although only the initials of the writer are given, it is not possible to mistake those of Mr. Bowlby. The other obituary notice refers to a physician—Dr. Southey—who for many years had ceased to be connected with the hospital, but those of us

who remember him during his visits to the wards will be glad to see this "In Memoriam" also. Mr. D'Arcy Power has given us his experience of operative surgery during the first sixteen months of his work as an assistant-surgeon, and he has certainly had many cases of interest during this period. Mr. Harrison Cripps also gives us tables of his abdominal operations. There are several valuable original papers dealing with some particular topic, which will be of interest both to the physician and surgeon, and an article descriptive of medical practice in foreign parts will interest many readers.

Glasgow Hospital Reports. Vol. I. Glasgow: James Maclehose and Sons. 1898.—We gather from the prefatory note that these Reports issue from the Royal, Western, and Victoria Infirmaries. The book contains many papers of much value. They deal with clinical observations and cases, and cover a wide range of subjects. To the student of clinical medicine and surgery such reports are invaluable. The first paper is by Professor M'Call Anderson on intra cranial tumours, and gives an account of six very interesting cases. A case of granuloma fungoides by Dr. McVail is an extraordinary one, and the patient, judging by the photographs, must have presented an appalling appearance. Three good examples of sudden blindness are reported by Dr. Maitland Ramsay, and then follows an able paper on the use of the ophthalmoscope in medical practice by Dr. James Hinshelwood. Dr. David Newman has an extremely valuable article on malformations of the kidney and displacements without mobility; he gives a very complete account of the subject, with references to the literature of the various conditions found; the cases are fully described, and illustrated by a number of well-executed pictures. Two other papers are on urinary asepsis, by Mr. J. H. Nicoll, and on the pathology of the coronary arteries of the heart, based on an analysis of 238 cases, with observations on the relation of disease of these arteries to angina pectoris and sudden death, by Dr. J. Lindsay Steven. There is also a useful paper on the clinical application of the Röntgen rays, by Mr. John Macintyre, and there are many other papers in the work which are of equal interest to those mentioned, but want of space prevents us from citing them by name. We desire to congratulate the committee and editors on the matter of their volume, which will repay careful reading, and also on its neat external appearance, the excellence of the type and illustrations, and last but not least on the provision of an index. The first of these reports promises well for the future.

The Johns Hopkins Hospital Reports. Vol. VII., Nos. 5-6-7-8-9. Baltimore: The Johns Hopkins Press. 1899.—The Reports of the Johns Hopkins Hospital are always of great value. This number is taken up entirely with a report on 459 cases of hernia, by Dr. J. C. Bloodgood, with special reference to

cases operated upon by Halsted's method and transplantation of the rectus muscle, and is well worth careful attention. The details of his operation are very fully given and illustrated by a series of beautiful plates. Dr. Bloodgood has found an absence of the conjoined tendon in many cases of hernia, and in these cases he brings down the edge of the rectus muscle to prevent a recurrence of the hernia at this part of the inguinal canal. The proportion of cases in which suppuration has occurred has never been high in this series of cases, but since silver wire has been used instead of silk for sutures, and especially since rubber gloves have been worn by the operator and his assistants, the number of cases in which suppuration has occurred has been very small indeed. The small number of recurrences, too, has been very encouraging. The question of atrophy of the testis after excision of the veins of the cord, both in the radical cure of hernia and for varicocele, is exhaustively dealt with, and the groin operation for varicocele fully considered. The success of Trendelenburg's operation for varicose veins may induce surgeons to adopt the groin operation for varicocele.

The Sanitary Value of the Operations of the Board in Reducing and Avoiding the Mortality from Typhoid Fever in the Metropolis of Sydney, N.S.W.—The report of the medical adviser to the Board, Dr. Theo. Mailler Kendall, dated January, 1898, proves the triumph of advance in health due to progressive sanitation.

Informes Rendidos por los Inspectores Sanitarios de Cuartel y los de los Distritos al Consejo Superior de Salubridad. Correspondientes al Ano de 1898. Mexico: Imprenta del Gobierno, en el ex-Arzobispado. 1899.—The pamphlet now before us was published a year after the improvements were made to which we called attention in December, 1899, and it records a substantial reduction in the number as well as in the mortality of zymotic diseases—notably in typhus fever, which was the scourge of the neighbourhood for more than 300 years. The medical men had considerable difficulty at first in convincing the inhabitants, and especially those of the poorer class, of the advantages of pure air, pure water, and cleanliness generally; but, after a time, they succeeded in inducing the people to work with them instead of against them, and the results so far have been in the highest degree encouraging.

Burdett's Official Nursing Directory. London: The Scientific Press, Limited. 1900.—This eminently useful directory contains much valuable information in addition to a list of trained nurses, with data as to their place and length of training (*e.g.*, a summary of the main facts regarding the various metropolitan and provincial training schools, an outline of the municipal laws affecting nurses, and some notes on provident funds available for nurses). It is a well-printed and very handy volume.

Archives of the Roentgen Ray. Vol. III. London: Rebman, Limited. 1899.—The interest and value apparent in the earlier volumes of the *Archives* are fully maintained in this, the third of the series. The general plan remains unaltered. The volume includes a number of papers bearing upon X-ray work and theory, some specially contributed, many abstracted from the proceedings of the Roentgen Society, as well as a large number of excellent half-tone plates reproducing skiagrams of special interest. Among much that will attract the attention of workers in this new field, Major Battersby's paper descriptive of his X-ray methods and achievements during the Soudan Campaign is calculated to take a leading place, not only as a chronicle of some of the first experiences in the systematic employment of such methods of diagnosis and localisation during warfare, but because of the valuable information of a more general kind that may be gathered from these experiences. Altogether, we may say that in these early days of skiagraphy, when every operator is but "feeling his way," such a record of actual successes and failures as the *Archives* affords is one which the practical worker cannot afford to ignore.

The Edinburgh Medical Journal. New Series. Vol. VI. Edinburgh: Young J. Pentland. 1899.—Most of the papers in this volume are of more than usual importance. The account of an outbreak of typhus fever, by Drs. Harvey Littlejohn and Claude B. Ker, demonstrates the value of unlimited fresh air, both for the success of the treatment of the patient and for ensuring the safety from infection of the attendants. We would also draw special attention to Dr. Beatson's paper on "Observations on the Existence of Enzymes in Cancerous Growths," in which he brings forward very strong arguments for their probable existence, although in the specimens he examined he was unable to demonstrate their presence. Papers by Mr. Barling on "Appendicitis," by Dr. Gibson on "Acromegaly," and by Dr. Kelynack on the "Pathology of Renal Tumours" are, amongst others, noteworthy. Local writers, we are glad to see, are well represented in the volume. The photographs illustrating some of the papers are much more distinct than usual, owing to the fact of their being printed on a white background. This is worth the attention of other journals.

Annual Report [of New Medicinal Preparations] on the Year 1899. Vol. VII. Darmstadt: E. Merck. 1900.—For those who wish to be amongst the advanced outposts in therapeutics this report is invaluable. It gives all the information possible on many drugs whose future reputation is likely to be in excess of present demands.

The Humane Review. April, 1900. London: Ernest Bell.—Our contemporary, we are informed in the introduction to this first number, has been founded to represent "the higher ethics

—the ethics of humaneness." It scarcely appears to have begun well in its leading article on "The Conflict between Science and Common Sense," by G. Bernard Shaw; but this view may be unjust, and due to the fact that the article in question is beyond our comprehension, being neither science nor common sense. Miss Honnor Morten writes a useful and sensible article on inhumanity in schools, and Mr. Josiah Oldfield has contributed a praiseworthy protest against the continuance of hanging as a punishment. We believe that *The Humane Review* will afford opportunities for the spread of much useful information, and hope that it will succeed in developing a higher sense of the obligations of humanity towards all living beings.

On the Uses and Abuses of the Public Hospitals in Australia, Tasmania, and New Zealand. By L. BRUCK. Pp. 72. Sydney: L. Bruck. 1899.—A perusal of this pamphlet shows clearly that the abuses of public hospitals at the antipodes are quite as serious as in the mother country, though the system of management is different. It will hardly be believed that in a progressive colony, such as we always considered New South Wales to be, there is no proper Medical Act, the stumbling block being the labour party—the representatives of the very people who benefit most by the work of the medical profession. Mr. Bruck is not a medical man; but evidently his sympathies are with the profession, and his small *brochure* is a heavy indictment of the manner in which medical institutions are created and managed.

Index-Catalogue of the Library of the Surgeon-General's Office, United States Army. Second Series. Vol. IV. D—Emulsions. Washington: Government Printing Office. 1899.—Now that the *Index Medicus* is, unfortunately, a thing of the past, the already great necessity of this work has become still further emphasised. The same careful compilation exists in the present volume as that which has characterised its predecessors. The last received includes 9628 author-titles, 8828 subject-titles, and 28,316 titles of articles in periodicals. No library can be considered complete without this catalogue, every page of which bespeaks a large amount of labour and success on the part of those engaged in its production.

The Medical Digest, or Busy Practitioner's Vade-Mecum. Appendix, including the years 1891 to March, 1899. By RICHARD NEALE, M.D. Pp. 261, xxxi. London: John Bale, Sons & Danielsson, Ltd. 1899.—The useful character of this work and the method of its compilation are so well known that they need little comment. The present volume has been incorporated with the appendix published in 1895, in order to facilitate reference. Dr. Neale is to be congratulated on the successful continuance of the valuable work, with which his name has so long been associated.

Notes on Preparations for the Sick.

THE PASTEURISATION OF MILK.

An increasing amount of evidence has recently been brought forward in support of the view that milk is a very common means of spreading various zymotic diseases, chief amongst which are epidemic diarrhœa, scarlet fever, enteric fever, diphtheria, and tuberculosis. By prolonged boiling milk may be sterilised, but there is undoubtedly a strong prejudice against boiled milk, chiefly on the ground of its unpalatableness, and partly on account of its constipating action and of its lessened nutritional value. Boiling has, therefore, come to be superseded by pasteurisation. In this process the fluid is raised and kept for a long time at a temperature sufficiently high to destroy the bacterial life present, and then rapidly cooled. In this way the taste is not altered, nor does a large amount of albuminous matter rise as a scum to the surface. The exact temperature to which the milk should be raised and the time during which it should be kept at this temperature are matters of dispute. Thus, Leeds believes milk may be rendered sterile by heating to 155° F. for six minutes; and Theobald Smith recommends a temperature of 140° F. for twenty minutes, provided no scum be allowed to form. Most of these data have been determined by experiments with the tubercle bacillus, and reliable results as to the effect upon spore-bearing organisms such as may be associated with the causation of summer diarrhœa are yet wanting. There are a variety of methods employed in pasteurising on a large scale. We have recently had the opportunity of inspecting the pasteurising plant of two large dairies in the West of England; viz., those of the London, Gloucestershire, and North Hants Dairy Co. in Bristol, and of the Bath and Somersetshire Dairy Co. Lmtd. in Bath. In the former the process is briefly as follows: The milk first flows over a heater through which a continuous stream of nearly boiling water is driven, and is thus raised to a temperature of 120° F. It then passes into a high-speed centrifuge, in which all mechanical impurities are absolutely removed. After mixing the milk and cream again in a small receiver, it passes to the pasteuriser, a tinned copper vessel heated by steam, which raises the temperature of the milk to 150° F. The milk then passes into insulated tanks, where by an arrangement of hot water and steam it is kept for twenty minutes at a temperature of 150° F. The final process consists in aerating and cooling the milk. This is done by first passing through it a current of filtered air, and then passing it over capillary refrigerators which rapidly reduce the temperature

to 50° F. Throughout the whole process the milk is untouched by hand, and whilst passing over the heaters and refrigerators is carefully protected from the external air. The interior of the plant is daily sterilised by steam. We were permitted to examine the temperature of the milk at all stages, and found it well within the required limits. A bacteriological examination of the milk showed that before treatment it averaged a half to one million bacteria per cubic centimetre, whilst a series of gelatin plates, each of which was inoculated with .5 c.c. of the pasteurised milk, gave an average of 85 colonies each, or 170 per c.c. These were spore-bearing, fermentative varieties, no cocci or pathogenic bacteria being detected. A specimen of the pasteurised product submitted to the centrifuge and the sediment injected into guinea-pigs did not give rise to tuberculosis or other pathogenic symptoms.

The plant of the Bath and Somerset Dairy Co. differs from the above, the procedure being as follows: The milk passes through a fine-meshed wire strainer and a cotton-wool filter into a vertical steam-jacketed turbine pasteuriser, and is here raised to a temperature of 150° F. It then passes into receiving tanks heated by steam, and the temperature maintained at 150° F. for twenty minutes. The cooler consists of a large cylinder, over the outside of which the milk flows into channels at the base, from which it is drawn off into churns. The temperature of the cooled milk is about 50° F.

From the description given above, it will be seen that pasteurised milk is not necessarily *sterilised* milk. The pathogenic organisms, the lactic acid-forming bacilli, and most of the other bacteria are killed, but a few spore-bearing, fermentative varieties may survive. These, according to Russell, form about .25 per cent. of the total number of organisms, and as their ingestion is not prejudicial to health they may be disregarded.

With regard to the important question of the alteration in the composition of milk in the process of pasteurisation, we find that although the taste and colour is unaltered, yet on standing no layer of cream rises to the top of the milk. This, however, is not due to any loss of butter-fat or cream, but to the breaking-up of the aggregation of fat globules owing to the mechanical processes through which the milk has passed. The scum which forms on the surface of boiled milk consists of coagulable albumen, and this, which is equal in amount to about one-fifth of the total casein, is generally lost. From analyses we have seen, it would appear that in the process of pasteurisation the amount of albumin is not lessened nor is the percentage of fat reduced.

We are of opinion that the process of pasteurisation affords a complete safeguard against the risk of infectious diseases conveyed by milk.

J. Odery Symes, M.D., D.P.H.

The Library of the Bristol Medico-Chirurgical Society.

The following donations have been received since the publication of the List in June:

August 31st, 1900.

The Executor of the late William Adams (1) ... 6 volumes.
The British Medical Association (2) ... ... 113 ,,
J. C. Culbertson, M.D. (3) ... ... 8 ,,
L. M. Griffiths (4) ... ... 1 volume.
Sir William Mac Cormac, Bart. (5) ... ... 1 ,,
R. Milne Murray, M.B. (6) ... ... 1 ,,
The Editor of *The Railway Surgeon* (7)... ... ... 1 ,,
E. Noble Smith... ... ... 1 ,,
The Manager of *The Times* (8) ... ... 1 ,,
The Editor of *Virginia Medical Semi-Monthly* (9) ... 1 ,,

A framed picture has been presented by Dr. Robert Roxburgh. Unbound periodicals have been received from Dr. F. H. Edgeworth.

THIRTY-SEVENTH LIST OF BOOKS.

The titles of books mentioned in previous lists are not repeated.

The figures in brackets refer to the figures after the names of the donors, and show by whom the volumes were presented. The books to which no such figures are attached have either been bought from the Library Fund or received through the *Journal*.

Adams, W.... ... *Club-Foot* ... ... (1) 2nd Ed. 1873
,, ... *Lectures on Curvature of the Spine* ... ... (1) 2nd Ed. 1882
,, ... *Surgical Treatment of Deformities* ... ... (1) 1893
Alt, A. ... ... *The Glandular Structures appertaining to the Human Eye* 1900
Auvard, A.... ... *100 illustrirte Fälle aus der Frauen-Praxis.* (Fürs Deutsche bearbeitet von A. Rosenau) ... (2) 1893
Bartlett, E. ... *On Typhoid and Typhus Fevers* ... ... (2) 1842
Behrend, H. ... *Cattle Tuberculosis and Tuberculous Meat* ... ... (2) 1893
Beissel, J. [Ed.].. *Aachen als Kurort* ... ... (2) 1889
Bell, C. ... ... *Medico-Legal Studies.* Vol. V. ... ... (2) 1898
Bell, R. ... ... *The Pathogenesis and Treatment of Cancer, without Operation* 1900
Böhm und M. von Davidoff, A. A. *Lehrbuch der Histologie des Menschen* (2) 1895

Braidwood, P. M. *De la Pyohémie* (Tr. by E. Alling) ... ... (2) 1870
Brodhurst, B. E. *Anchylosis* ... ... (2) 4th Ed. 1881
Brunton, T. L. ... *The Harveian Oration*, 1894 ... ... (2) 1894
Butlin and W. G. Spencer, H. T. *Diseases of the Tongue* ... [2nd] Ed. 1900
Carwardine, T. ... *Operative and Practical Surgery* 1900
Catalogue of the Museum, Royal College of Surgeons, Edinburgh. Vol. I. (2) 1893
Chapman, J. A. Wanklyn and E. T. *Water Analysis*... ... (2) 4th Ed. 1876
Clark, J. ... ... *On Consumption and Scrofula* ... ... (2) 1835
Cock, T. F.... .. *Manual of Obstetrics*... ... ... (2) 1853
Cowen, R. J. ... *Electricity in Gynæcology* 1900
Dakhyl, H. N. ... *Du Traitement des Brulures spécialement par l'Acide picrique* ... ... (2) 2e. Éd. 1898
Davidoff, A. A. Böhm und M. von *Lehrbuch der Histologie des Menschen* (2) 1895
Eade, Sir P. ... *Notes on Influenza* ... ... (2) 1891
Eccles, W. McA. *Hernia* 1900
Fayrer, Sir J. ... *Recollections of my Life* 1900
Fenwick, E. H. ... *Ulceration of the Bladder* 1900
Fothergill, W. E. *Manual of Midwifery* ... ... 2nd Ed. 1900
France, Stations hydro-minérales de la 1900
Frankland, P. F. *Our Secret Friends and Foes* ... ... (2) 1893
Gairdner, W. T.... *The Physician as Naturalist* ... ... (2) 1889
Gerhardt, C. [Ed.] *Handbuch der Kinderkrankheiten.* Bd. V., Abth. 2 (2) [N.D.]
Gordon, C. A. ... *Army Hygiene* ... ... (2) 1866
Gross, Samuel D., Autobiography of. Vol. I. ... ... (2) 1887
Hankin, E. H. ... *The Bubonic Plague* ... ... (2) 1899
Hawthorne, C. O. *Rheumatism, Rheumatoid Arthritis, and Subcutaneous Nodules* 1900
Hertoghe, E. ... *De l'Hypothyroïdie bénigne chronique ou Myxœdème fruste* ... ... (2) 1899
Holmes, T. ... ... *Introductory Address delivered at St. George's Hospital, October 2nd, 1893, on the Centenary of John Hunter's Death* ... ... (2) 1893
Horton-Smith, P. *The Typhoid Bacillus and Typhoid Fever* 1900
Huber, J. C. ... *Bibliographie der klinischen Helminthologie* (2) Hefts V.—IX. (in 3) 1893–95
Jones, H. L. ... *Medical Electricity* ... ... 3rd Ed. 1900
Locke, J. ... ... *An Essay concerning Human Understanding* ... ... (2) 1828
Lowndes, W. T.... *The Bibliographer's Manual* ... ... 6 vols. (in 11) 1857-64
MacCormac, Sir W. *Address of Welcome—Centenary of the Royal College of Surgeons of England*... ... ... (5) 1900
Macewen, W. ... *Die Infectiös-Eiterigen Erkrankungen des Gehirns und Rückenmarks* (Deutsche ausgabe von P. Rudloff) (2) 1898
Manson, P.... ... *Tropical Diseases* ... ... [2nd] Ed. 1900
Marcet, W. ... *Diseases of the Larynx* ... ... (2) 1869
Mitchell, C. A. ... *Flesh Foods* 1900
Newman, G. .. *Bacteria* 1899
Nicolaier, A. ... *Urotropine*... ... ... (4) [N.D.]
Paris et l'Exposition, Renseignements pratiques sur 1900
Paris-Médical 1900

Park, W. H. ... *Bacteriology in Medicine and Surgery* 1900
Parkin, J. ... ... *Epidemiology.* Part I. ... ... (2) 1873
Pathology, An Atlas of Illustrations of (New Syd. Soc.) Fasc. XIII. ... 1900
Pharmacopœia, Prescribers' ... ... (2) 3rd Ed. 1896
Poland, J. ... ... *Records of the Miller Hospital and Royal Kent Dispensary* ... ... (2) 1893
"Punch," An Evening with .. .. (8) 1900
Schaeffer, O. ... *Atlas der Geburtschilfe.* Theil II.... ... ... (2) 1892
Selected Essays and Monographs (New Syd. Soc.) 1900
Sibthorpe, C. ... *Clinical Manual for India* ... ... (2) 3rd Ed. 1890
Sieveking, E. H. *The Medical Adviser in Life Assurance* ... (2) 2nd Ed. 1882
Spencer, D. B. ... *A Record of Indian Fevers* .. .. (2) 1899
Spencer, H. T. Butlin and W. G. *Diseases of the Tongue* ... [2nd] Ed. 1900
Squire, P. ... ... *The Pharmacopœias of Thirty of the London Hospitals* (Ed. by P. W. Squire) ... ... 7th Ed. 1900
Steven, J. L. ... *Clinical Medicine* 1900
Swan, J. ... ... *Diseases and Injuries of the Nerves* ...(2) [2nd Ed.] 1834
" *On the Means employed for correcting the Inverted Image on the Retina of the Eye* ... ... (2) 1865
Swanzy, H. R. ... *Diseases of the Eye* ... ... 7th Ed. 1900
Thomson, A. ... *On Neuroma and Neuro-Fibromatosis* 1900
Virchow, R. [Ed.] *Handbuch der speciellen Pathologie und Therapie* Bd. II. ... ... (2) 1855
Walsham, W. J. *Surgery: its Theory and Practice* ... ... 7th Ed. 1900
Wanklyn and E. T Chapman, J. A. *Water Analysis* ... ... (2) 4th Ed. 1876
Whistler, W. Mac N. *Syphilis of the Larynx* ... ... (2) 1879
Zerolo, T. ... ... *Climatoterapia de la Tuberculosis pulmonar* ... ... (2) 1889

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American Gynæcological and Obstetrical Journal, The Vols. XV., XVI. 1899-1900
American Gynecological Society, Transactions of the Vols. XIII.–XV., 1888–90, XVII.–XIX. 1892–94
American Journal of Obstetrics, The ... ... Vol. XXIV. 1891
American Journal of Ophthalmology, The ... ... Vol. XVI. 1899
American Journal of the Medical Sciences, The ... N.S., Vol. CXIX. 1900
American Laryngological Association, Transactions of the, for 1893 (2) 1894
American Medico-Psychological Association, Proceedings of the ... (2) 1898
American Orthopedic Association, Transactions of the (2) Vols. X., XI. 1897–98
American Practitioner and News, The ... ... Vols. XXVII., XXVIII. 1899
American Year-Book of Medicine and Surgery, The .. ... 2 parts 1900
Annales de la Société Belge de Chirurgie ... ... Tome VII. 1899
Annales de l'Institut de Pathologie et de Bactériologie de Bucarest. Vol. VI. 1898

Annali di Ostetricia e Ginecologia 1899
Annual and Analytical Cyclopædia of Practical Medicine ... Vol. V. 1899
Archiv für Verdauungs-Krankheiten ... ... Bd. V. 1899
Archives of Ophthalmology ... Vols. VIII., IX., 1879–80, XI.–XIII. 1882–84
Archives of Ophthalmology and Otology ... ... Vol. V. 1876
Archives of Otology ... ... Vols. VIII., IX., 1879–80, XI.–XIII. 1882–84
Archives of Surgery ... ... Vol. X. 1899
Archives provinciales de Chirurgie ... ... Tome VIII. 1899
Archives provinciales de Médecine ... ... Tome I. 1899
Archivio di Ortopedia ... ... [Vol. XVI.] 1899
Army Medical Department– Reports ... ... (2) Vols. VI., 1866, XXV.–XXVII., 1885–87, XXIX., 1889, XXXII., 1892, XXXIV. 1894
Association of American Physicians, Transactions of the (2) Vol. IX. 1894
Australasian Medical Gazette, The ... ... Vol. XVIII. 1899
Bombay, Report on the Bubonic Plague in, 1896–97 ... ... (2) 1897
" " " Plans, Temperature Charts, &c. ... ... 2 vols. (2) 1897
Boston Medical and Surgical Journal, The ... ... Vol. CXLII. 1900
British Gynæcological Journal, The ... ...Vol. XV. 1899
British Medical Journal, The ... ... Vol. I. for 1900
Bulletin de l'Académie de Médecine ... 3e Sér., Tomes XLI., XLII. 1899
Bulletin de l'Académie royale de Médecine de Belgique 4e Sér., Tome XIII. 1899
Canadian Practitioner and Review, The ... ... Vol. XXIV. 1899
Centralblatt für innere Medicin 1899
Cincinnati Lancet and Observer, The (3) N.S., Vols. II., 1859, VI., 1863, VIII., 1865, XIV., 1871, XVIII.–XXI. 1875–78
Clinical Journal, The ... ... Vol. XV. 1900
Columbia University, Studies from the Department of Pathology of the College of Physicians and Surgeons (2) Vol. V., Part 1. 1896–97
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Local Medical Notes.

THE PRESENTATION TO MR. L. M. GRIFFITHS.

As many of the subscribers to the testimonial to Mr. L. M. Griffiths may like to know something of the details of the bookplate which formed part of the presentation, we give a reproduction of it [1] and some remarks on it supplied by the artist, Mr. W. V. Collette.

Of late years the armorial bookplate has to a great extent been superseded, and it is now the custom to show, in the place of arms, crest, or heraldic blazonry, a design that tells something of the profession, pursuits, and tastes of the owner. In the majority of cases this is a comparatively easy task for the designer, but when the owner is a man of many parts it becomes a matter of considerable difficulty to introduce in the very limited space at the artist's disposal the various objects which symbolise the subjects in which his client is specially interested.

1 The lettering on the volumes can be distinctly read in the impressions taken from the copper, but in the reproduction some of the words have become blurred.

EX LIBRIS
L.M.GRIFFITHS.
MAXIMA

In this instance the profession of the owner is represented by the Æsculapian rod and serpent, and by the tree of life in the quatrefoils in the lower portion of the design. The introduction of Tanner's *Practice of Medicine*, a book much in vogue some years since, and of Heath's *Minor Surgery* shows that the possessor of the bookplate is a general practitioner in whose work surgery has only a subordinate place. The view of Bristol Cathedral indicates not only the city in which he lives, but also his churchmanship, and this is further emphasised by a representation of some of the more sacred things to be found in the interior. The statue of Queen Victoria, which was erected near the Cathedral, has also been included, and serves to point out the loyalty of the owner of the bookplate to the form of government under which this country has flourished so well.

Opportunity has been taken to give in addition to the open Bible on the lectern a portion of the title-page of the Great Bible of 1539, not only because this was the chief precursor of the various Bibles in English which appeared about that time, but also because the library of which this is to be the bookplate contains a great deal of literature on the Bible. The choice of this epoch-making book shows that the attention of the owner of the bookplate is not chiefly directed to the languages in which the Book was originally written, but to our own version, and this is still further pointed out by the introduction of the volume containing the parallel texts of the Authorised and Revised Versions of the New Testament.

Some of the other characteristics of the owner's library are indicated by Hook's *Church Dictionary* and by the Works of Shakspere, a reproduction of whose bust from the monument in the Church of Stratford-on-Avon is also given. The possession of books referring to the Drama generally is pointed out by the masks of Comedy and Tragedy, and the mask of History is added to represent one branch of dramatic literature and to still further indicate the nature of the library.

The motto, "Curarum maxima Nutrix," is appropriated from Ovid's description of Night (*Metam.*, viii. 81), and is particularly applicable to the books which are a delight and a refreshment to their owner, and which, as a restorative, rival that which "knits up the ravell'd sleave of care" and is "chief nourisher in life's feast."

The emblematic design of the conjoined cross, anchor, and heart—behind which is the sun, representing light and knowledge—is introduced as indicating that which should dominate the life of all of us, while the recumbent effigy in the canopied tomb in the circle on the right is a useful *memento mori*.

Brilliancy is given to the whole design by introducing here and there in its background minute bay-leaves of a deeper tone than the other portions of the plate, and its general artistic effect is heightened by the cherubic figures introduced into its upper portion.

BRISTOL.

UNIVERSITY COLLEGE, BRISTOL.—The Associateship of the College has been conferred upon Mr. M. Bergin, M.B. Lond., and Mr. A. R. Short, B.Sc. Lond.

Mr. C. O. Bodman, M.R.C.S., L.R.C.P., recently took the degrees of M.B. and B.S. of the University of Durham, and the following gentlemen have obtained the diplomas of the M.R.C.S. Eng., and L.R.C.P. Lond., viz.:—Messrs. L. A. Moore, J. M. H. Munro, D.Sc., M. H. Phillips, W. B. Prowse, C. F. Walters, and S. R. Williams.

At the Intermediate Examination in Medicine of the London University, held in July, Messrs. Henry Devine and A. R. Short were successful. Mr. J. H. Parsons, M.B. Lond., M.R.C.S., L.R.C.P., has passed the Primary Examination of the F.R.C.S. Eng. Diploma.

Mr. Arthur Rendle Short, by obtaining the first place in Physiology and Histology with the Exhibition and Gold Medal, the first place in Materia Medica with the Exhibition and Gold Medal, and first class honours in Anatomy, has done great credit to himself and to the College to which he belongs.

A Clinical and Bacteriological Research Laboratory has been established at the College with the object of "enabling the medical men of Bristol and the West of England to obtain reliable information and reports upon pathological material, and of placing at the disposal of authorities dealing with drinking water, persons concerned with the supply or consumption of milk, and those engaged in manufacturing processes, the resources of a properly equipped Research Laboratory. Medical men and others will be afforded the opportunity of personally carrying out investigations, should they desire it."

It will be noticed that work is undertaken for medical men, and also for others not members of the profession. For the former the ordinary investigations of a Clinical Laboratory will be carried on, such as the examination of Sputum, Urine, Pus, &c., as well as of Serum for the Widal reaction, and of throat secretions for Diphtheria Bacilli; and facilities will be given to those who wish to carry out work on their own account. For those not members of the profession the work will vary with the requirements, and it is impossible to enumerate every case in which the Laboratory may be of service; but whenever doubt arises it is suggested that inquiries be made, when an opinion will be given as to whether good is likely to come of any investigation which can be undertaken.

This Laboratory has been organised by, and will be under the direct supervision of, Professor A. F. Stanley Kent, Professor of Physiology at the College and Bacteriologist to the Royal Infirmary.

Bristol Royal Infirmary.—We have observed with much regret the announcement of Mr. F. Richardson Cross's resignation of the office of ophthalmic surgeon at the Bristol Royal Infirmary, which he has held for fifteen years, previous to which he filled the posts of assistant surgeon and surgeon for a period of seven years. His energy and enthusiasm in all matters relating to the interests of his profession, and his valuable teaching, will still be available to his *confrères* in Bristol, where he will continue to carry on his work, although the increasing pressure of engagements has caused him to sever his connection with the active work of the Royal Infirmary, to which he has been elected Honorary Consulting Ophthalmic Surgeon.

Princess Christian Hospital.—We note with pleasure the safe return of various members of the staff whose departure was announced in a former issue. Mr. Paul Bush, Mr. Flemming, and Mr. Cridland have resumed their duties in Bristol, but Mr. Pearse remains as one of the staff of the Princetown Hospital in Natal.

THE 2ND GLOUCESTER ROYAL ENGINEER VOLUNTEER CORPS.—The new company formed entirely by students and members of the staff of University College, Bristol, is now nearly up to full strength. Professor A. F. Stanley Kent has been commissioned First Lieutenant of the company.

CYCLOPIA. — This successful festival was held at the Clifton Zoological Gardens on June 28th, 29th, and 30th, with the object of obtaining funds for the extensions which have lately been made at the Bristol Eye Hospital. We are pleased to hear that the substantial sum of about £1,260 will be contributed to the required funds as the result of the undertaking. The extensions which have been made at the Hospital have involved the adding of an entirely new storey to the building, providing proper sleeping accommodation for the nurses and servants, some small wards for patients, and a thoroughly modern operating theatre. Also a new wing has been built at the back, and the whole Hospital fitted with the electric light. The total cost of the extensions will exceed £6,000. They will be opened at the end of September. The numerous attractions for the public afforded by the Cyclopia assured success, and if the weather had not greatly interfered with the proceedings on the third day this success would have been even much greater.

PUBLIC HEALTH.—The Health Committee of Bristol propose to submit to the Town Council a scheme for increasing the accommodation for infectious diseases. At present 147 beds are available, which is an average of one bed for 2,300 of the population. The Health Committee suggest the extension of Ham Green Fever Hospital by the addition of the buildings originally intended, and in the meantime temporarily to re-open Clift House, Bedminster, as a hospital, in case the present hospital should not afford the necessary accommodation.

BARNSTAPLE.

NORTH DEVON INFIRMARY.—The annual meeting of the subscribers and friends of the North Devon Infirmary was held on August 21st, under the presidency of Lord Fortescue. The report stated that during the past twelve months 654 in-patients and 2,269 out-patients had been treated. The average daily number of in-patients was 46, the average stay of each being 25½ days. The financial statement showed that the total ordinary expenditure exceeded the ordinary income by about £500. The committee reported that the Convalescent Home in connection with the Infirmary at Morthoe was doing a most useful work.

BARRY.

SMALL-POX HOSPITAL.—At a meeting of the Public Health Committee of the Barry District Council, held on August 6th, it was decided to erect a permanent small-pox hospital at an estimated cost of £8,160.

CARMARTHEN.

OBITUARY.—Mr. William Lewis Hughes died at his residence, Carmarthen, on July 17th, in his 48th year. He received his medical education at the London Hospital Medical School, qualifying as

M.R.C.S. Eng. and L.S.A. Amongst other local appointments, Mr. Hughes was consulting surgeon to the Carmarthen Infirmary and medical officer of health of the town.

MERTHYR TYDVIL.

WORKHOUSE INFIRMARY.—The new Workhouse Infirmary is now completed, and is occupied by the patients. The female wards contain 42 beds, and there is also a lying-in ward of 10 beds. The men's wards provide accommodation for 70 beds. The expenditure has been over £13,000, exclusive of the furnishing, which amounted to £1,300.

SWANSEA.

GENERAL HOSPITAL.—The annual general meeting of this institution was recently held under the presidency of Colonel Morgan. The report stated that 892 in-patients had been admitted during 1899, the daily average number of occupied beds being 90.1, against 84 in 1898. The out-patients numbered 4,392. The financial statement showed that during the year the adverse balance was reduced from £1,391 to £845. The annual income was greater by £244. The workpeople's contributions showed an increase of £359. Baroness Patti-Cederstrom's concert realised £360 for the charity, and the house-to-house collections reached £418. During the year several much-needed improvements have been carried out in the building.

SWINDON.

LUNACY.—At the meeting of the Board of Guardians, held on August 2nd, it was reported that 142 patients from this union were inmates of the Wiltshire County Asylum, the cost for their maintenance being £3,400.

TEIGNMOUTH.

HOSPITAL.—Mr. T. E. Frazer-Toovey has been appointed House-Surgeon.

TRURO.

ROYAL CORNWALL INFIRMARY.—The annual meeting of this institution was held on August 13th, under the presidency of Colonel Tremayne. The report showed that during the past year 393 in-patients had been admitted; 790 out-patients had also been attended, against 650 in the previous year. The financial statement showed that the receipts amounted to £1,902, and there was a favourable balance of £86 remaining. The Cornwall Convalescent Home for Men at Perranporth, in connection with the Infirmary, had received 114 patients, their average stay being 24 days, and the cost per patient £2 5s. 8d. The High Sheriff of Cornwall (Mr. R. Harvey) was elected president for the ensuing twelve months.

SCRAPS

PICKED UP BY L. M. G.

Clinical Records (32).—First Oculist: "I had a most interesting case yesterday." Second Oculist: "What was it?" First Oculist: "I saw a young lady who instead of a common pupil has a college student in her eye."

Medical Meetings.—Dr. J. N. Hall, in the *Journal of the American Medical Association*, says: "Did you ever study why it was that some physicians fail to attend the meetings of the medical societies? Perhaps it begins in carelessness or laziness, but sooner or later such men are likely to get so far behind their brethren that they do not attend because they are painfully conscious of the fact and fear to appear at a disadvantage. The physician who does not associate with his fellows runs great risk of falling into one of two errors. Either he becomes an egotist, because he fails to see the good work that others are doing, or, if of a timid nature, and faithful in his work, from knowing his own weaknesses so well, he feels that he is immeasurably behind his brothers in the profession. One cannot see where he stands in the race unless he sees both those in front of him and those in the rear. Let us, then, support warmly our medical societies. Let us inculcate into the minds of the younger men all that is best of the sacred inheritance which has come down to us from the earliest times, that they may know the debt they owe to the profession, and be led to attempt to add something to our store of knowledge, as an acknowledgement of the immensity of the debt. Let us instill into them ideals so high that they shall make of our occupation, not a mere trade, but what it should be, a liberal profession, and, I thank God, the noblest profession it is given to the sons of men to follow."

"The Apothecary Poet."—In *The Asclepiad* for 1884 Dr. B. W. Richardson had a biographical record of Keats, embellished with a very excellent portrait. Dr. William Osler has also an interesting article on Keats in the *Johns Hopkins Hospital Bulletin* for January, 1896. Other authorities for the life and work of Keats are too well known to need specific mention.

Keats, after being a student at the combined schools of Guy's and St. Thomas's, passed the Apothecaries' Hall in 1816, but gave up medicine in the following year. On September 23rd, 1819, in writing to his friend, C. A. Brown (the author of *Shakespeare's Autobiographical Poems*), he says: "In no period of my life have I acted with any self-will but in throwing up the apothecary profession."

That Keats and Brown had each a pretty wit may be seen from what occurred concerning a house which Brown had let to a Nathan Benjamin. The water of the house came through a tank which was lined with lime. Wishing to have a joke with Brown, Keats wrote the following note in Benjamin's name:—

"Sir,—By drinking your damn'd tank water I have got the gravel. What reparation can you make to me and my family? "Nathan Benjamin."

Brown accordingly surprised his tenant with the following answer:—

"Sir,—I cannot offer you any remuneration until your gravel shall have formed itself into a stone, when I will cut you with pleasure. "C. Brown."

In the summer of 1818 Keats began to get throat trouble, no doubt the beginning of the tuberculosis from which he died. On February 3rd, 1820, he had an attack of hæmoptysis. From this date we can trace in his letters the melancholy progress of the disease. On June 22nd he had a return of the spitting of blood, which lasted several days. The serious nature of the disease was by this time evident to both the patient and his physicians. He acknowledges that it will be a long, tedious affair, and that a winter in Italy may be necessary. "'Tis not yet consumption," he writes Fanny Keats, "but it would be were I to remain in this climate all the winter." This, too, was a time of terrible mental distress, as he became madly jealous of Brown. The letters of this period to Fanny Brawne tell of the "damned moments" of one who "dotes yet doubts, suspects yet fondly loves." Preparations were made for his journey to Italy, which he speaks of "as marching up to a battery." He sailed for Naples, which was reached after a tedious voyage about the end of October, 1820. Severn, the artist, accompanied him, and

has given (*Atlantic Monthly*, April, 1863) a touching account of the last months of his friend's life. In Rome, Keats was under the care of Dr. (afterwards Sir) James Clark, who, with Severn, watched him with assiduous care throughout the winter months. On February 14th, 1821, he requested Severn to have inscribed on his grave-stone the words: "Here lies one whose name was writ in water"; and on the 23rd, not having reached his twenty-sixth birthday, he passed away quietly in Severn's arms.

Medical Philology (XXXV.).—The *Promptorium* gives "Dragaunce, herbe. *Dragancia, basilica, dracentra*," and the *Catholicon* "Dragence or nedd*er* grysse; *dragancia, basilisca, herba serpentaria vel serpentina*." In his note Mr. Way says: "Numerous virtues are ascribed by Macer and other writers to the herb dragaunce or nedder's tongue, called also dragon wort, addyrwort, or serpentine, arum or aron. See Roy. MS. 18 A. VI. f. 73. Macer says that 'water of dragaunce ys gode to wasshe venome soris,' and it appears to have been yearly distilled in the household of the Earl of Northumberland, 1511. See Antiqu. Rep. iv., 284." Mr. Herrtage's note gives "'*Dracontium*. Dragon wort or dragens.' Cooper. Cogan, Haven of Health, 1612, p. 72, recommends the use of *Dragons* as a specific for the plague. Harrison, Descript. of England, ii. 34, says that the sting of an adder brings death, 'except the iuice of *dragons* (in Latine called *Dracunculus minor*) be speedilie ministred and dronke in stronge ale.'"

Dragonwort, the obsolete name of the *Dracunculus vulgaris*, was reputed not only to be useful, as Harrison said, for the cure of the sting of an adder, but was credited with prophylactic power, for Lyte, *Dodoens*, III. vi. 322 (quoted in the *New English Dictionary*), says: "It is thought . . . that those which carrie about them the leaues or rootes of great Dragonwurtes, cannot be hurt nor stong of Vipers and Serpentes."

Our forefathers must have been satisfied with very slender evidence of the curative qualities of remedies which they vaunted highly and with much assurance. It would seem that they considered that, having received the name "nedder's tongue" or "addyrwort" on account of the shape of portions of the plant, it must have a beneficial effect in troubles arising from the animal which it was supposed to represent. Adder's tongue, which as a name should be restricted to the fern *ophioglossum*, was "applied loosely to various other plants, superficially more or less resembling it."

The form "nedder" is interesting as a fifteenth century instance of the original form which "lost its initial *n* through the erroneous division of *a naddre* as *an addre*." Apron, orange, and umpire are some other instances of English words having lost their initial *n*. The *Promptorium* has "Barmclothe,[1] or naprun. *Limas*," "Eddyr, or neddyr, wyrme. *Serpens*" and "Nowmpere, or owmpere. *Arbiter, sequester*." As it was thought that it meant "the *golden* fruit," orange lost its *n* very early. It appears only in that form in the *Promptorium*. There is a record that the fruit so named came to England in 1290. On the other hand, the word newt has permanently gained its initial from the final letter of *an*, and other words borrowed it for a time. The *Catholicon* has "a Nere; Auris, auricula," and Mr. Herrtage in his note quotes "*Hec auris, A*[e] nere" from Wright, who in his *Vocabularies* says that the practice of prefixing the final *n* of an article to the noun, when the latter commences with a vowel, is of constant recurrence in vocabularies of the fifteenth century. The Rev. Walter W. Skeat, in his *Etymological Dictionary*, names some of these, and refers to Halliwell's *Dictionary of Archaic and Provincial Words* for examples of them. In the Rev. A. Smythe Palmer's *Folk-Etymology*, the twenty-four pages on "Words Corrupted by Coalescence of the Article with the Substantive" afford much of interest and erudition on this subject.

Dragon is used in a great variety of combinations, probably always with the idea of special force or strength or efficacy. That which is known commercially as dragon's blood has some medical interest, as it is the styptic I have often seen the Jewish minister use for his circumcisions. It is a resinous substance generally obtained from the fruit of *Calamus Draco*.

[1] Barm, meaning bosom or lap, is often met with from the tenth to the fifteenth century. Chaucer has it in several places.